Green Thumb

NEWS

Denver Botanic Gardens
January 1988
Number 88–1

Harry Luther Presents "The Bromeliads of the Northern Andes" January 12

This new year begins on an exciting note with the third of the Bonfils-Stanton Foundation Lecture Series. On January 12 Harry Luther will discuss "The Bromeliads of the Northern Andes." Each program begins at 7 p.m. on the second Tuesday evening of each month through March in John C. Mitchell II Hall.

Mr. Luther was born in St. Petersburg, Florida, and as a child he developed a fascination for the epiphytes that grew everywhere. At an early age of 18, he realized his avocation that has led to an "enviable" life collecting and studying in the northern Andes and the headwaters of the Amazon river.

Few people actually get the opportunity to travel to these remote corners of the world, but his expertise in the study of bromeliads gained respect in the scientific community and provided him a passport to the exotic.

Harry Luther is employed at the Marie Selby Botanical Gardens in Sarasota, Florida, as the curator of their extensive bromeliad collection and the Bromeliad Identification Center. His discoveries of new species from Ecuador have been published in the *Journal of the Bromeliad Society* and *Selbyana*. He reported on four new species in 1987 alone.

Currently Mr. Luther is involved in a long-term project studying the flora of Ecuador. He and several of his colleagues form a team, researching, docu-

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"Landscaping with Wildflowers and Native Plants"

"Landscaping with Wildflowers and Native Plants" is a conference designed to increase interest and encourage the use of wildflowers and native plants in our Western landscapes. The conference, sponsored by Denver Botanic Gardens and the National Wildflower Research Center, is scheduled in the Brown Palace on February 5 and 6.

Each region of the country possesses a distinct flora that presents new opportunities in landscaping design. Many traditional landscaping and maintenance problems may be lessened by incorporating native plants. Each region has a particular native plant selection from which to choose. There are aesthetic, ecological and economic reasons to incorporate wildflowers and native plants into our landscapes.

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Bromeliad Catopsis compacta by Gary Davis

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Annual Meeting Scheduled

Everitt L. Miller, Director Emeritus of Longwood Gardens and author of *The American Garden Guidebook,* will be the guest speaker for DBG's Annual Meeting. Mark your calendars for Wednesday, March 2, 1988, for Mr. Miller's program, "Great Gardens of America." Watch your February *Green Thumb News* for reservation details.

Tributes

In honor of 50th Anniversary of Mr. & Mrs. Clifford M. Beery
Robert & Rebecca Holman
In memory of Major Christopher Brammer
Marian P.A. Miller
In memory of LaCille Dodge
Robert H. Dodge
In memory of Mrs. William Dutton
Anne & Elaine LaTronico
In memory of Donald E. Goodheart
Mr. & Mrs. John A. Atkinson
In memory of Mrs. Cordelia "Noni" Gould
Mr. & Mrs. Theodore Washburne
In memory of Joan Meredith
Mr. & Mrs. William B. Collister
Marilyn Girouard
Betty McCaulley
Ann Meloy
Maggie Safy
Phyllis Summers
In memory of Annie S. Nelson
Mr. & Mrs. Eric Abl
Mr. & Mrs. E. H. Alm
Mrs. Ruth T. DeCicco
Mrs. Virginia M. Dodson
Lodge Enighet
Evelyn Hammond & Linda Scholes
Lillian & Howard Helm
Irene Hilbert
H. H. Hueske
William & Doris Kluth
Mrs. Bertha E. Larson
Elna Larson
Mrs. Rebecca Liddle
Lois M. Mershimer
Mrs. Karin Nashland
John A. Nelson
Anna L. Nyberg
Mr. & Mrs. Gunnar Sandstrom
Mr. & Mrs. C.A. Snell
Herman B. Swanson
In memory of Ruth Ashton Nelson
Dr. & Mrs. Moras Shubert
Mr. & Mrs. Bruce J. Thornton
In memory of Mr. & Mrs. Forrest C. Northcutt
Mr. & Mrs. James C. Seccombe
In memory of Mrs. Rose Olde
Henry & Anne Newman
In memory of Marjorie B. Porter
John & Jackie Geister
In memory of Ralph Rickenbaugh
Mr. & Mrs. Ted P. Stockmar, Jr.
In memory of Raymond R. Robison
Sallie Richardson Family
Gladys I. Robison
Roselee Robison
In memory of Sam Sandos
Elsa Swyers & Anne Eccles
In memory of Patricia Sidwell
Anne & Marshall Diggs



Community Gardens Space Available

Interested in vegetable gardening but don't have the space? The Gardens community vegetable gardening program provides a place to garden (150-square-foot plots), educational opportunities and materials needed to start growing your own fresh produce.

For many people, hands-on experience is the easiest way to learn and novice gardeners are encouraged to "dig right in." All basic materials such as educational handouts, use of tools, fertilizer, water and a variety of seeds are included in the nominal fee of $30 for DBG members or $40 for non-members.

Gardening in a group setting provides participants with the opportunity to be exposed to a wide variety of horticultural techniques and to be involved in the events that are generated by a community spirit. If you would like to participate in the 1988 community vegetable gardening program, call 575-3751, ext. 43, to obtain additional information. Space is limited so plan to register early.

Gardeners Wanted

Denver Botanic Gardens is now taking applications for the 1988 full-time seasonal gardening staff who may start as early as March. Gardening experience and the ability to work outdoors all day in the early spring and through the summer are needed. Pay ranges upward from $4 per hour depending on experience and ability. Call the DBG receptionist at 575-3751.

Donate a Wheelchair to DBG

One of our more important courtesies to members and visitors has been to provide a wheelchair when needed. Unfortunately, demand has been greater than our supply. Help others share your pleasure in knowing the far reaches of the 22 acres of the Gardens. Donations of used wheelchairs in good condition are needed. If you can assist us with this, we, and a number of visitors, would be most appreciative. Call 575-3751, extension 22, for additional information.

Green Thumb News
Number 88–1 January 1988

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 575-3751.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than December 18 for February, January 20 for March and February 19 for April.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 575-3751 for details.

Accredited by the American Association of Museums

1988 Summer Intern Program

"There is no doubt that I would recommend this program to other students. I am very grateful for all the efforts to make this a learning experience for me. Much of what I have learned could not have been attained in the classroom." This statement from a previous summer intern clearly states the purpose of DBG's Summer Internship in applied horticulture.

Designed to be a practical work-learning experience for college students, it provides the opportunity to work side-by-side with our professional staff and volunteers who are involved in the daily operation of a public display garden. This is experience normally not obtained in the classroom environment.

Included is planting, watering, pruning and weeding on the outside grounds; seeding, transplanting and propagation in the greenhouses; tropical and subtropical plant display and maintenance; plus work in the Library and Education department. In addition to the regular scheduled work activities, classes, field trips, lectures and demonstrations are planned.

To qualify, applicants must have completed their sophomore year of college with a grade point average of at least 2.5 on a scale of 4.0 and must be currently enrolled as either an undergraduate or graduate student. Several introductory courses in botany and horticulture are prerequisites. A taxable stipend of $2,000 will be paid to each intern for the ten-week term.

All application materials are due March 1, 1988, and notification of appointment will be mailed by March 25, 1988.

Application forms and additional information can be obtained by writing:
Patricia A. Pachuta
Education Director
Denver Botanic Gardens
909 York Street
Denver, CO 80206

Applications are now available for the 1988 program that begins on June 13 and ends August 19, 1988.

Another intern, when asked if he would recommend the program stated, "If asked for specific reasons why a student should enroll as an intern I would tell them of the great staff, interesting forms of gardening, and unique learning experiences (such as the mycology field trip) offered by the program."



At the recent dedication of our new gardens: (left to right) DBG Board President Ed Connors, Mayor Federico Peña, and DBG Trustee and former Board President Dick Kirk

DBG Dedicates Three New Gardens

Denver Botanic Gardens proudly dedicated three special gardens September 29. These gardens, the Laura Smith Porter Plains Garden, the Xeriscape Demonstration Garden and the Wingsong Garden, will provide members with new and unique landscaping ideas as well as a better understanding of our environment. Newly installed interpretive signs will clarify design objectives and plant material in each garden.

During the ceremony the city was presented with the three gardens and in accepting them Mayor Peña stated, "There are many people involved in putting together gardens such as these, but three things stand out in my mind. They represent education—the Plains Garden, conservation—the Xeriscape Garden, and enjoyment—the Wingsong Garden. I am pleased to accept them on behalf of the City of Denver."

The Denver Water Board and the Gardens combined efforts to develop the Xeriscape Garden. It demonstrates conservation of natural resources and is designed for our regional climate. Furthermore it provides new and attractive landscaping concepts for homeowners concerned with conserving water.

The Plains Garden is in memory of Mrs. James Waring's mother, Laura Smith Porter, who traveled across the prairies to settle in the Colorado Territory. The Plains Garden recreates the grassland heritage of eastern Colorado and consists of over 15 prairie communities characterized by soil, moisture and types of plant associations.

The Helen K. and Arthur E. Johnson Foundation supported the development of the Xeriscape and Wingsong Gardens. The Wingsong Garden is designed to attract birds and to provide opportunities for viewing them in a variety of habitats. It supplies their four basic needs: food, water, shelter and nesting.





Guides Needed for DBG's Youngest Visitors

Prekindergarten children are unique. They are far more sophisticated and knowledgeable now than 20 years ago thanks to preschool opportunities and television. From the earliest days of their infancy they have delightfully explored the sensory world experiencing sight, taste, sound, smell and touch.

At Denver Botanic Gardens we would like to assist with this all-important time of discovery. A new, year-round program for guiding preschool children through the Gardens (Conservatory and Outside Grounds) will soon begin and we are looking for very special guides who enjoy groups of young children.

The Gardens contain a wealth of information for young children. A series of guide training classes will help you prepare to lead tour groups. Children will delight in learning about leaves with spines that "bite back," plants that "munch" bugs and plants that ride "piggyback" on other plants.

This is a volunteer program and by participating you will become eligible for certain benefits. You will meet others who share your desire to excite children about the world of plants. You will help fulfill an important role and help meet an ever-increasing demand for tours. In the summer of 1987 we had over 1,200 preschool students visit the Gardens without the benefit of a tour guide. They certainly enjoyed their visits, but they never learned about animals that live inside the marshy world of a bromeliad.

If you enjoy the challenge of communicating with enthusiastic young children, you have time to donate and you would like to become involved in this new program, contact the Gardens' Education department, 575-3751, extension 20, for more details.

Conservatory Guide Training Program Begins January 12

Lead a journey through the tropics, ducking under lianas or peeking through the roots of the rubber tree for a glimpse of an orchid flowering behind it. Denver Botanic Gardens' Conservatory Guides have an unequalled opportunity to lead educational tours and enjoy the tropics while the rest of Denver shivers.

Beginning Tuesday, January 12 and continuing until March 15, a ten-week training program will offer Conservatory Guide training classes.

Students from schools in the metropolitan area visit the Gardens on a regular basis as an extension of the classroom experience, and a group of volunteers guide these enthusiastic tours through the "jungle." In 1986 several thousand adults and school children were led through the Gardens by our elite core of volunteer guides.

Trips to greenhouses allow students the chance to see unusual plants in four inch pots, but nowhere else in Denver can they observe houseplants that are 50 feet tall. In the ten-week program future guides will obtain an orientation to the Gardens and our collection of plants, an introduction to basic botany and tips on how to lead educational tours.

Class size is limited and advance registration is necessary. To register for this class, use the Education department registration form in this newsletter. A $25 fee will be refunded after 40 hours of touring.

New guides can attend continuing education classes that are scheduled throughout the year for them. Additionally, after 40 hours of volunteering they are able to attend a class in the Education department at no cost other than the materials fee if applicable. The guide program has an active group that meets frequently so anticipate making new and interesting friends while providing a valuable service to the community.

The need for guided tours is an ever-increasing demand that we hope you will consider helping the Gardens meet. For additional information call the Education department, 575-3751, extension 20.

The Negligent Gardener by Emerson R. Birchfield



A neighbor recently offered the unsolicited opinion that if we didn't spend so much time tending the garden, we'd have more free time. Our retort was simple: If we had more free time, we'd make more garden. Perhaps that's the trouble with the state of gardening nowadays—time. None of us has enough; whether we want a few flowers around the front door, or are busy building our own version of the Alps in the backyard.

The answer may be in our choice of plants for our gardens. "The Flowering of Denver," the 39th Annual Plant and Used Book Sale, has hope for those who have despaired of ever having the time to develop their green thumbs. These plants fit into the "plant-and-forget" or "can't kill with a club" category. The negligent gardener can appear respectable.

Perennial Chairman John Reber tells us that his division will offer many species that don't require much fuss. The first group is the irises. It's the mean-spirited gardener who can't find a place for these late spring beauties. Besides the familiar bearded iris, Mr. Reber has assembled a varied group of species iris to fit many garden conditions, including the tall graceful Siberian, and the "blue flag" iris, *I. missouriensis*. A very choice item is the variegated iris, with cream and green leaves and soft lavender flowers.

Some folks simply refuse to believe that some plants are trouble free, so they invent maintenance for them whether they need it or not. Take iris for a case in point. Some gardeners insist on cutting the foliage into a fan shape after blooming. Newly transplanted iris are cut to ensure root development, but it is detrimental to shear back established clumps, not to mention downright unsightly. We should simply enjoy the sculptural spear-shaped leaves, sweep the walk instead and stay out of trouble.

When we think of easy-care plants, we should look to the plains natives. One that comes to mind is *Echinacea purpurea,* the purple coneflower. We would not go so far as to call it purple—it seems to be more of a luscious wine pink—but is an exceedingly pretty daisylike creation with a glowing orange center. Its more slender cousin, *E. pallida,* is an even softer pink with graceful drooping petals. The coneflowers not only resist most critters and plagues, they bloom profusely from midsummer to frost and are drought-tolerant to boot.

There are many other perennials that require little or no maintenance, and even seem to thrive on neglect. We're always a bit suspicious of a plant that grows this well, perhaps too well, and we have nightmares of foreign vines strangling the roses and TV antenna while neighbors complain of missing pets. One of our gardening friends, Ms. M., whose pets compete all too aggressively with well-mannered plants, actively seeks out those branded "invasive" and manages to strike a peculiar balance.

For those of you without wolfhounds, we can guarantee that the following will behave in a most civilized manner, while still being robust and carefree: *Hemerocallis,* the daylily, whose expanded hues remind us of the frosty colors of fruit sherbets; *Coreopsis,* its sunny gold contrasts so well with the papery blue of *Linum perenne,* the blue flax; and the assorted penstemons such as *Penstemon pinifolius,* whose scarlet tubes will tempt hummingbirds down to ground level for its sweet nectar. Gardeners with hummingbirds and cats may not be able to stand the drama this combination provokes.

Another area for the time-short to investigate is the rock alpine section. Their selection of ground covers has grown steadily over the years. Strictly speaking, Astroturf qualifies as a ground cover, but Rock Alpine Chairwomen Lynda Goldstein and Kathy Borgen assure us that their selections are chosen to please the eye, not punish it. Some of them, however, are about as tough as nails. Mrs. Goldstein and Mrs. Borgen especially recommend *Helianthemum nummularium,* the brilliantly toned sunroses; *Delosperma,* the hardy iceplant; *Teucrium canadense,* the American germander; and *Veronica liwanensis,* which becomes a cloud of powder blue in spring. A particularly good xeriscape selection would be *Arctostaphylos nevadensis,* a relative of the kinnikinick.

Roses might be a surprising recommendation for those who have little time. Let's face it—roses have a reputation. The vision of finding oneself pruning, spraying and wringing hands in despair over the latest outbreak of blackspot is not a pretty one. While it's true that a well-tended rose certainly performs better, some varieties succeed with little care. The shrub roses can survive and bloom for the most indifferent gardener. *Rosa rugosa,* hardy to 9,000 feet, rewards us with flushes of fragrant deep pink blossoms and with shiny orange hips, a delightful fall accent and a treat for the birds. With its blush white summer-long bloom, the shrub rose 'Seafoam' forms a three-foot mound with a four-foot spread. The hybrid 'Bonica' is a no-fuss rose with trusses of delicate shell pink flowers all summer.

Miniature roses are also growing in popularity as their ease of culture becomes known. Rose Chairwoman Betty Lou Roberts especially recommends 'Starina', a glowing orange red; 'Popcorn', a charming white with yellow center; and 'Mary Marshall', a glorious pink. Miniatures can grow as tall as three feet, but may be pruned to keep them smaller. They are delightful in small bouquets where their diminutive flowers can be appreciated.

In the depths of winter we're quite dutiful about making horticultural New Year's resolutions. We vow to try 10 new plants (we usually find it difficult to keep it under 50). We resolve to keep our spending in check (see above). We declare a holy war on slugs (we suspect they feel the same way about us).

The good intentions of a weekend gardener have a greater chance of success if time restraints are considered at planting. Even a brief burst of spring enthusiasm can carry a long way with the right plants. After the 1988 Plant Sale, the negligent gardener should take time only to accept compliments.

Emerson R. Birchfield is our special correspondent for "The Flowering of Denver." A highly regarded gardener, he claims not to have a green thumb, "just an active imagination and a sore back." His column will appear regularly to report on the plant sale scheduled for May 6 and 7.

From Your 1988 Plant and Used Book Sale Chairman



1988 Plant Sale Chairman Jeanne Ruggles

It's really November as I write this note to you and just this last weekend I tucked my last bulb into the ground. Planning for a glorious garden in the spring seems to be a year-round process!

The same applies to those of us at the Gardens who are responsible for organizing our annual spring fundraiser—the 39th Plant and Used Book Sale. It's the best and earliest marketplace for plant materials and expertise. We have welcomed on board many volunteers for this event and would like to extend an invitation to all our members to participate.

As a volunteer you can shop as a preferred customer on Thursday afternoon, May 5 (the Plant Sale is May 6-7), from 3 to 5 p.m. but, that is not all. We are excited about our "How to, When to, What to and Not to" program that was started in 1987 and offers training tailored specifically to provide an understanding of the plant materials available at the sale. The date for this training has not been set, but will be a morning session in April.

How to participate? Please contact the Gardens at 575-3751 leaving your name, address and phone number with the receptionist. Then watch this newsletter for details. Please indicate when you call whether you plan to attend the "How to, When to, What to and Not to" program. If you cannot attend, there are volunteer opportunities that do not necessarily involve this knowledge. Our staffing coordinator, Mary Ellen Turk, will contact you to schedule a time for you to volunteer.

I hope many of you will call us today and express your interest to become a Plant Sale volunteer. We will try very hard to make these days spent working for the Gardens enjoyable and hope you will join us to continue the success of this annual event and help generate some of the necessary revenue that supports the Gardens.

Jeanne Ruggles
1988 Plant and Used
Book Sale Chairman

1988 Garden and Home Show

In 1987 almost 10 percent of the DBG membership took advantage of the free admission offer from the organizers of the Annual Colorado Garden and Home Show. They were so appreciative of the response that the offer is being provided once again this year. On opening night, Friday, February 5, from 6 to 10 p.m., DBG members will be admitted at no cost to the 29th Annual Colorado Garden and Home Show to preview Denver's early spring highlight.

Bright and sunny is the forecast for "Sights and Sounds of Spring" so go and enjoy yourself. General admission for adults, $4.50; senior citizens, $3.50; children 6-12, $2.00; under 6, no charge. Hours are Friday, February 5, 6 to 10 p.m.; Monday to Saturday, noon to 10 p.m. and noon to 6 p.m. on Sundays.

The Colorado Garden and Home Show is organized by Colorado Garden Show, Inc., a not-for-profit group that assists the Gardens by providing grants for various projects throughout the Gardens.

Take advantage of this year's special agreement and enjoy the Garden and Home Show in Currigan Hall, located at 14th and Champa Streets. If you do go the first night—don't forget your DBG membership card.

Harry Luther

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menting and introducing new plants to the horticultural community.

Gardener Florist II, Gary Davis, who specializes in DBG's extensive collection of bromeliads, has met Mr. Luther and states "Harry is a quiet, reflective man, but when asked a few questions you find a person who is extremely knowledgeable and speaks with real confidence. Not only has Harry shared his keen insight of the plant world, he has also shared with DBG many unusual and exciting tropical plants for our collection. Mr. Davis also highly recommends "The Bromeliads of the Northern Andes," a program you shouldn't miss if you share an appreciation for bromeliads.

Members may attend this lecture at a cost of $2.50 each and non-members are welcome at individual programs for $5 each. Please return the registration form in the Bonfils-Stanton Lecture Series brochure mailed to all members or use the Education department registration form in this newsletter. If you are bringing guests, be sure to include their names as well. If space is available, reservations will be sold at the door on a first-come, first-served basis.

"Landscaping with Wildflowers and Native Plants"

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The Gardens shares with the National Wildflower Research Center a dedication to conservation and the use of wildflowers and other native plants in our planned landscapes. The Center is a non-profit organization and through their membership program information is provided to aid in the successful establishment of native plants. Founded by Lady Bird Johnson in 1982, the Wildflower Center has rapidly become the primary national source for this information and continues to expand its research activities throughout the nation.

An optional activity takes participants to the popular "Ramses II—The Great Pharaoh and His Time" at the Denver Museum of Natural History for a tour and special reception. Buses will leave the Brown Palace Hotel at 5:30 p.m. returning by 9 p.m. and $28 will reserve space on this tour.



The registration fee for the 1½-day conference is $75 for members of Denver Botanic Gardens or the National Wildflower Research Center, and $85 for non-members. Pre-registrations received by January 5, 1988, will receive a $10 discount. Registration includes a wine and cheese party on Friday and a box lunch on Saturday.

Please return the registration form in the "Landscaping with Wildflowers and Native Plants" brochure mailed to all members, or call the Education department, 575-3751, extension 20, for an additional brochure or for more information.

CLASSES

Winter
1988
Denver Botanic Gardens

Perennial Pleasures

(five sessions)
Tuesdays, Jan. 26, Feb. 2, 9, 16, 23
7 to 9 p.m. Classroom C

With proper planning and planting, perennials can enhance any garden with long term beauty and reduced maintenance. Discover the pleasures of perennial gardening in this five-session course that covers garden design, soil preparation and cultivation as well as a multitude of suggested plants.

Perennials for specialized situations such as shady areas will also be discussed. There will be ample opportunity for questions.

Instructor: Andrew Pierce is a horticulturist and is Assistant Director of DBG. He is an accomplished grower of perennials and alpine plants.

Fee: $40 members/$44 non-members

Limit: 18

Xeriscape Gardening

(seven sessions)
Section I: Mondays, Feb. 1, 8, 15, 22, 29, March 7 from 5 to 7 p.m. and field trip on Sat., March 12 from 9 a.m. to noon
Section II: Thursdays, Feb. 4, 11, 18, 25, March 3, 10 from 7 to 9 p.m. and field trip on Sat., March 12 from 1 to 4 p.m.
Classroom C
Please indicate your section on the registration form.

Reconsider traditional landscaping and use "xeriscape" or dryland concepts to add a variety of interesting plants to your garden. Learn about their different habitats, from the desert to the grasslands, and apply this information to grow these plants successfully.

This course will include design principles and the culture and maintenance of a wealth of plants with special emphasis on the non-traditonal. Curl-leaf mountain mahogany, rabbitbrush, cliff rose and paper flowers are all examples of beautiful yet untapped dryland plants that Colorado has to offer.

Through slides, a tour of DBG, and the development of a class study problem, students will develop an appreciation of our natural resources and a landscape that incorporates this awareness.

Instructor: Gayle Weinstein is a botanist horticulturist at DBG and oversees all aspects of our outdoor plant collections. Mrs. Weinstein has written numerous articles on dryland gardening and is the designer of DBG's new Xeriscape Garden.

Fee: $60 members/$66 non-members



Landscape Design for Colorado Homeowners

(ten sessions)
Wednesdays, February 10, 17, 24, March 2, 9, 16, 23, 30, April 6, 13
7 to 9 p.m. Classroom B

This course will cover basic horticulture and design principles to help you create a landscape that is functional, low-maintenance, water-efficient and beautiful. You will also learn about a variety of native and common plant materials, from perennials to trees, all for use in Colorado. Discuss how to deal with troublesome landscape features such as poor drainage, noise and unsightly views.

Students will also learn about phasing landscape installations as well as what to look for if someone else does the work. Other topics include decks and rock gardens, insects and disease in the landscape and maintenance and irrigation.

Through slide lectures, field trips, input from local professionals and work with each person's landscape, students will renovate or create new "living spaces." Come with a 24 by 36-inch drawing board, notepaper, two pencils, eraser, engineer's triangular ruler and all of your ideas.

Instructor: Anna Thurston is a CSU graduate in landscape horticulture design. She has owned a landscape design and architectural firm for five years and is presently studying landscape architecture.

Fee: $80 members/$88 non-members

Beginning Bonsai

(three sessions)
Mondays, Feb. 15, 22, 29
7 to 9:30 p.m. Classroom B

This introductory course will cover the historical and cultural techniques of bonsai, the art of creating dwarf trees and shrubs. Instruction on styling, training, potting and general care of bonsai will be included.

Each student will take a completed bonsai home and all materials will be provided.

Instructors: Keith Jeppson, past president of the Rocky Mountain Bonsai Society, is an experienced bonsai hobbyist of 16 years. Harold Sasaki is a commercial bonsai grower with 18 years of experience. Both are capable instructors.

Fee: $52 members/$57 non-members (includes a $22 materials fee)

Limit: 15

Hawks, Owls and Bald Eagles

(three sessions)
Thursdays, Feb. 11, 18 from 6:30 to 8:30 p.m. in Classroom A and Sunday, Feb. 21 field trip from 9 a.m. to 3 p.m.

Do you realize that bald eagles are found during the winter in Colorado along the Platte River and the surrounding Boulder area?

This course will emphasize specific raptor identification and behavior

beyond the normal field guides. Introductory sessions cover detailed identification characteristics of these birds of prey. The field trip will depend on where the largest population of hawks are this year. Please bring a field guide to the birds to the first meeting.

Meet: Participants will discuss the field trip meeting place and carpooling during class.

Instructor: Tina Jones is a board member of the Colorado Field Ornithologists and a naturalist/biologist with extensive birdwatching experience throughout the United States.

Fee: $24 members/$26.50 non-members

Mounting Bromeliads Workshop

(one session)
Saturday, February 27
9 to 11 a.m. **Classroom A**

Through lecture and demonstrations, learn the basic care of epiphytic, or tree-dwelling, bromeliads. In a hands-on session, students will have the opportunity to mount a small bromeliad on cork bark to take home. All materials are provided.

Instructor: Gary Davis is a gardener florist at DBG whose responsibilities include the bromeliad and orchid collections.

Fee: $15 members/$16 non-members (includes $7 for materials)

Limit: 15



Gardener Florist II Gary Davis shows off the DBG bromeliad collection.



Rock Alpine Garden Curator Panayoti Kelaidis

Know and Grow Orchids

(three sessions)
Saturdays, February 20, 27, March 5
9 to 11 a.m. **Classroom C**

Discover the fantastic orchid family and their basic cultural requirements in this three-session course. Following an introduction to the natural and human history of the orchids, participants will learn how to develop a good collection for their homes and greenhouses.

Fundamentals of soil media, watering and fertilizer will be covered through lectures and demonstrations. Each student will have the opportunity to take a division home following a hands-on dividing and repotting session.

Instructor: Botanist Horticulturist Larry Latta oversees the DBG greenhouse collections. An orchid hobbyist for over 15 years, he has collected in the wilds of Ecuador, Venezuela and eastern Mexico.

Fee: $24 members/$26.50 non-members

Limit: 18

Rock Garden Construction

(two sessions)
Thursdays, February 18, 25
7 to 9 p.m. **Classroom B**

Although rocks form a very conspicuous element in the Western landscape, many gardeners wonder how to incorporate them effectively into their gardens.

In the first session, students will be shown examples of the appropriate use of rocks in a variety of home gardens and will discuss some of the dos and don'ts of rock garden construction. A list of suppliers and their wares will be provided.

In the second session, participants will have two opportunities to build miniature rock gardens and have their work critiqued constructively.

Instructor: Panayoti Kelaidis is curator of the award-winning Rock Alpine Garden at DBG and is a popular and enthusiastic instructor.

Fee: $16 members/$17.50 non-members

Limit: 18

An Alpine Miscellany

(four sessions)
Thursdays, March 3, 10, 17, 24
7 to 9 p.m. **Classroom B**

Local gardeners are discovering that there are many exciting new plants available that can provide a long season of bloom and interesting textures throughout the year. Attend the series or choose those that suit your individual needs and learn to add these gems to your garden.

Tuesday, March 3
Garden Architecture: Dwarf Conifers and Shrubs

Dwarf conifers have been a popular feature in European gardens and on both coasts of the U.S. for many years. Recently, a much broader range of conifers is now sold locally.

Review those that are most widely available throughout the Rocky Mountain region, which perform best and how to grow them. Ways to incorporate dwarf shrubs and conifers into the home landscape will also be covered.

Thursday, March 10
A Woodland Corner: Wildflowers for the Home Garden

Many city gardens have shady areas along the north side of the house or under dense trees or shrubs that are often an eyesore and a maintenance problem. With some soil preparation, mulching and planning, it's possible to transform these areas into an attractive, easy to care for garden filled with unusual ferns and lovely flowers such as rhododendrons, wild ginger and a variety of primroses.

This class will include a slide presentation demonstrating how such a garden can be prepared and students will receive plans including a list of 30 basic woodland plants that are widely available and recommended for growing in the Denver area.

Thursday, March 17
Rocky Mountain Alpines: Western Wildflowers for the Home Owner

Traditional rock gardens consist of alpines from the Alps or other relatively humid, maritime mountain ranges. Many of these perform poorly in Colorado without considerable irrigation. Numerous native rock plants are far better suited to our conditions, however.

Learn about the best penstemons, eriogonums, phloxes and the choicest native daisies now available in the trade. Students will be able to select several seed packets of native wildflowers to grow at home.

Thursday, March 24
Alpine Miniatures: Tiny Plants for Troughs and Containers

In recent years, nurseries in the Denver area have begun to grow and import more and more unusual alpines and wildflowers. Many of these, such as gentians, androsaces and saxifrages, are too small to grow successfully in the open garden. Why not try growing some of these in a container? In this class, several different kinds of troughs (containers for growing alpines) will be demonstrated, and a variety of miniature rock plants will be displayed for you to compare—and you can even take one home.

Instructor: Panayoti Kelaidis

Fee: $30 members/$33 non-members for the series of four programs or $9 members/$10 non-members for each individual class. If you are attending individual programs, be sure to include their dates on the registration form.

Art in Nature

(five sessions)
Saturdays, Feb. 20, 27, March 5, 12, 19
2 to 3:30 p.m. Classroom A

In this course, slide presentations will illustrate how different artists at different times viewed nature.

Compare Leonardo da Vinci's meticulous drawings of plants to the large flower studies of Georgia O'Keefe. Contrast the romantic excitement of Turner's seascapes and the work of the French impressionists. Enjoy Monet's Giverny gardens in all their variations of glorious color. Feel Van Gogh's virility in his sunflowers, Cezanne's majesty in the St. Victoire studies and the joie de vivre of Matisse.

Instructor: Oksana Ross, Ph.D., studied at New York University and Columbia University and has over 30 years of teaching experience. Dr. Ross is a life member of the Arts Students League of New York where she studied under Hans Hofman, Will Barnett and Edgar Whitney.

Fee: $40 members/$44 non-members

Watercolor and Drybrush Techniques for Botanicals

(six sessions)
Saturdays, Jan. 16, 23, 30, Feb. 6, 13, 20
1:30 to 3:30 p.m. Classroom B

Have you seen the Dutch Renaissance paintings of bouquets, complete with flowers of all the seasons, painted over an extended period of time? In this contemporary version, students will study and paint a different flower each week. A single painting will develop from these studies, with a different piece being added to the painting each session.

Focus will be on the drybrush techniques in watercolors that produce fine detail. Students can expect to enhance their drawing and compositional skills.

Previous experience with watercolors is desirable, and students should bring whatever materials they have on hand to the first session.

Instructor: Rob Proctor is a Boettcher scholar who studied at the University of Colorado. He has held one-man shows in three countries and his botanical drawings and watercolors hang in many collections throughout the world.

Fee: $48 members/$53 non-members

Beginning Ikebana Lessons

(four sessions)
Saturdays, February 6, 13, 20, 27
9:30 to 11:30 a.m. Classroom B

In this introductory course, students will view slides and gain a preliminary understanding of four schools of arranging: Ikenobo, Chiko, Ohara and Sogetsu. They will practice and take home beginning styles of light, airy arrangements using spring flowers such as irises and pussy willows.

Instructor: Joan Wooldridge is a certified teacher of Sogetsu with instruction in the schools of Ohara and Ikenobo. She recently returned from the Fifth World International Ikebana Convention in Kyoto where she served as the official delegate from the Denver chapter.

Fee: $44 members/$47 non-members (includes $12 for flowers). Materials such as containers and flower holders will cost approximately $27-40 and are available in the DBG Gift Shop.

Limit: 12

Watercolor Painting

(five sessions)
Wednesdays, Feb. 3, 10, 17, 24, March 2
9:30 a.m. to noon Classroom B

Explore the sparkle and delicacy of watercolor painting while enjoying the natural setting of Denver Botanic Gardens. This course will cover the basic materials and techniques of watercolors with emphasis on the freedom of personal expression.

Come prepared with supplies. You'll need: a 1½-inch flat brush, a #10 round brush, watercolor paper, tissues, container for water, plastic palette and cake or tube watercolors.

Instructor: Lynette Swanson-O'Kane is a graduate of the Philadelphia College of Art and a professional artist with national representation of her work.

Fee: $50 members/$55 non-members

Limit: 12



Bromeliad Tillandsia magnusiana by Gary Davis

Beginning Botanical Illustration

Tuesdays, Jan. 12, 19, 26, (skip Feb. 2), Feb. 9, 16, 23
(six sessions)
Classroom B 9:30 to 11:30 a.m.

Cold winter mornings are an ideal time to get acquainted with some of the many exotic tropical plants in our collections.

This introductory course will stress accurate drawing of flowers, roots, stems and leaves. Fresh plant material will be used for each class and will be dissected when necessary to draw individual plant parts.

Students work with pencils, pen and ink, and finally progress to watercolors. Please bring several sharp drawing pencils and an eraser to the first class.

Instructor: Angela Overy received her National Diploma of Design from London University, England, and designed in London, New York and San Francisco before settling in Denver. Over the years, many DBG students have found a new interest and ability in her enthusiastic classes and lectures.

Fee: $54 members/$59 non-members (includes $6 for materials)

Limit: 15

Basketry Workshop: Heart-Shaped Basket

(one session)
Sunday, February 7
9 a.m. to 5 p.m.
DBG's Morrison Center

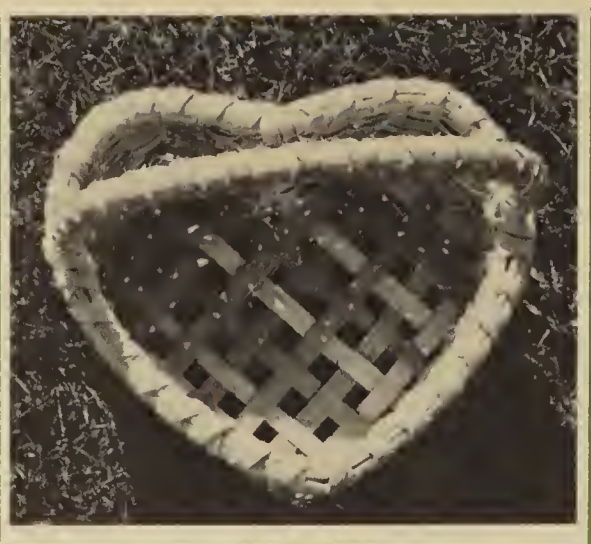
Students in this class will create a traditional Appalachian heart-shaped basket. Using flat reed, they will weave an 8 by 5-inch basket using the square to round technique. This basket can be made with a relatively open or closed base and an optional handle.

Please bring a sack lunch, pruning shears, a sharp knife and a towel to class.

Instructor: Elaine Morrison is an experienced basketry instructor with four years of hands-on experience.

Fee: $30 members/$32 non-members (includes $10 for materials)

Limit: 12



Heart-shaped basket

Appalachian Basketry Techniques

(five sessions)
Tuesdays, Feb. 9, 16, 23, March 1, 8
6:30 to 10 p.m. except Feb. 9 when class begins at 6 p.m.
DBG's Morrison Center

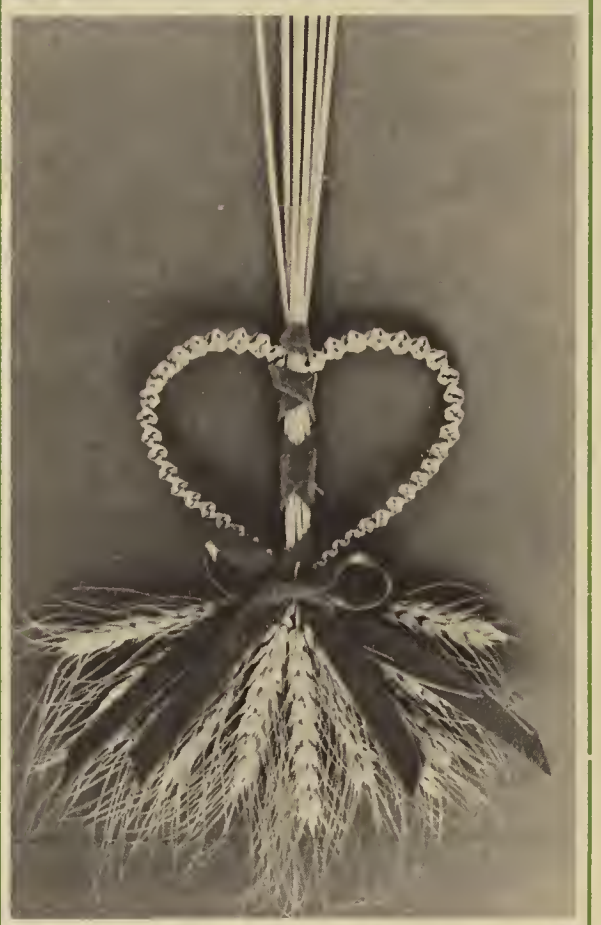
Learn the traditional Appalachian egg basket and some of its variations. These gracefully shaped baskets originated in Scotland and came to America with the Highland settlers. Students will learn this rib and split technique in a variety of shapes and can expect to complete one basket each session.

Please bring kitchen or garden shears, awl, jackknife, measuring tape, pinch-type clothespins, pencil and an old towel to class.

Instructor: Elaine Morrison

Fee: $95 members/$105 non-members (includes $35 for the construction of five baskets).

Limit: 12



Mordiford by Instructor Maureen McGowan



Appalachian basket

Wheat Weaving Workshop: Mordiford Love Token

(one session) **10 a.m. to noon**
Section I: Wed., February 3
Section II: Sat., February 6
DBG's Morrison Center
Please indicate your section on the registration form.

Create a unique, heart-shaped wall hanging for your home or that special someone. Students will learn the seven straw plait for this design.

Attendance at a previous wheat weaving course is necessary. Please bring scissors, heavy thread and a ruler to class.

Instructor: Maureen McGowan is a horticultural instructor and consultant who has taught various craft classes, including wheat weaving, at the Chicago Botanic Gardens as well as DBG.

Fee: $11 members/$13 non-members (includes $3 for materials)

Limit: 12

Wheat Weaving Workshop: Spiral Woven Wreath

(one session) **10 a.m. to noon**
Section I: Wed., March 2
Section II: Sat., March 5
DBG's Morrison Center
Please indicate your section on the registration form.

Expand your knowledge of working with wheat. Learn to make a wreath or "bow and arrow" using the spiral weaving technique.

Attendance at a previous wheat weaving course is necessary. Please bring scissors, heavy thread and a ruler to class.

Instructor: Maureen McGowan

Fee: $11 members/$13 non-members

Limit: 12

Registration Form for Classes and Field Trips

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206
Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 575-3751.

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes_____

Name_____

Address_____

City_____ State_____ Zip_____

Home Tel. No._____ Business Tel. No._____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

Gardening Tips for January

Gardening is a year-round activity, and although temperatures are cold and plant growth has slowed down, it is often at this time of year when plant problems begin. Unfortunately, symptoms are not apparent until the plant becomes stressed. This gap between winter causes and spring and summer symptoms makes it difficult to relate the distress to the actual cause.

January is one of the months in which heaving of shallow-rooted or newly planted plants becomes a problem. Fluctuations in temperature cause the ground to freeze and thaw. Plants are pushed upward, the roots become exposed, dry out and freeze. If they are not pushed back and watered, they will die. To moderate temperature and protect the plants, mulches of various kinds can be placed over vulnerable plants.

Another potential problem this time of year is heavy snow or ice collecting on branches. To avoid breakage of the plants, snow should be carefully brushed off before it becomes soggy and refrozen. In the past five years we have had several reminders of how damaging some snowstorms can be.

The most deceptive problem of winter is the lack of moisture available to the plant roots. Plants lose moisture all year; it is just less apparent in winter. If the roots cannot replace lost water, branches and/or foliage will desiccate. Often the problems show up in July when plants are under the greatest stress. The parts farthest from the roots often show the symptoms first. As unlikely as it may seem, to avoid problems later, the hose must be brought out in winter for a thorough watering, a reminder that gardening is an ongoing process.

One encouraging aspect of January is the planning for the coming spring. Two gardens at Denver Botanic Gardens may interest some of you to incorporate a few ideas in your own yard. The Xeriscape Demonstration Garden displays various dryland communities and illustrates plant materials that are fairly new to the landscape trade. These include the Utah juniper, *Juniperus osteosperma,* single-leaf ash, *Fraxinus anomala,* and squaw apple, *Peraphyllum ramosissimum*. The Vegetable Demonstration Garden has undergone construction and this year will feature ornamental and edible crops that create beauty as well as good eating.

This is also a good time of year to be aware of plant parts such as stems, buds and dry fruits that have potential for use in fresh bouquets or dried arrangements. Red- or yellow-stem dogwoods, *Cornus sericea* and *Cornus sericea* 'Flaviramea', coupled with the green stems of Japanese kerria, *Kerria japonica,* are very effective. Iris seed heads, milkweed and alder fruits are still decorative at this time of year.

Winter is an excellent time for plant awareness and identification. Rocky Mountain maple, *Acer glabrum,* has gray stems and bright red buds. Apache plume, *Fallugia paradoxa,* has white stems with small emerging leaves. Mormon teas, *Ephedra viridis* and *Ephedra torreyana,* show off their green and gray-blue stems as well as their different growth forms.

After concentrating on the outdoors, what about those holiday plants that remain indoors such as poinsettias, kalanchoes and amaryllis?

Poinsettia, *Euphorbia pulcherrima,* may have lasting color if it is kept near a sunny window with day temperatures of 65-70 degrees and night temperatures 5 degrees lower. It should be kept watered because dryness as well as cold and hot drafts cause premature leaf drop. Also, despite the common misconception, these plants are not poisonous.

Amaryllis, *Amaryllis belladonna,* should be kept in a sunny area where night temperatures are 50-60 degrees. They should be watered continuously until spring, then placed in a shady spot outside after the danger of frost has past.

Kalanchoes such as *Kalanchoe blossfeldiana* have a great advantage. They retain moisture through their succulent foliage and survive in the average home that has good light and 10-20 percent relative humidity.

For all of us who enjoy the excitement and beauty of spring, evening is a good time to read the catalogs and other gardening wish books and anticipate a good gardening year.

Gayle Weinstein
Botanist-Horticulturist
Denver Botanic Gardens



Down the Garden Paths in January

The Gardens are alive in winter! The plants, both indoors and outdoors, are as interesting and as exciting, in many respects, as they will be the rest of the year. So choose several days this January for strolls through the Gardens.

Early on a silent morning after a fresh snowfall, the Japanese Garden appears as enchanting as it is exotic. The Rocky Mountain foothills recreated in the Gates Garden offer a secluded, easy mountain "hike" in the center of the city. Bring your camera. Catch extraordinary images of plants in their winter moods.

If there's no snow cover, many individual plants can be seen to their best advantage now, their structure revealed. Evergreens, especially the broad-leaved ones, stand out. In the Rock Alpine Garden notice the various species of *Arctostaphylos* with their apple green leaves, the similar *Garrya flavescens* (a California-Arizona native now shining through its fifth year of hardiness here), *Daphne arbuscula* displaying its Dartmouth green mound against the blue-gray foliage of the blue star junipers, and the fine sunny green *Hebe cupressoides*.

Flowers? Seek out the Christmas rose, *Helleborus niger,* nodding in the protection of a north-facing rock.

Indoors, catch the displays featuring tillandsias in Marnie's Pavilion. This is their season to bloom. The Lobby Court display is also featuring bromeliads this month, as well as orchids, ferns, gesneriads and some cacti, as we explore the world of epiphytic plants.

Larry Latta
Botanist-Horticulturist
Denver Botanic Gardens

CALENDAR JAN



S	M	T	W	T	F	S
					1 DBG Closed	2
3	4	5	6	7	8	9
10	11	12 Bonfils-Stanton Lecture Series: Harry Luther, Botanical Illustration*	13	14	15	16 Watercolor & Drybrush Techniques for Botanicals*
17	18	19	20	21	22	23
24	25	26 Perennial Pleasures*	27 Animal Tracks and Signs at Chatfield Arboretum*	28	29	30
31	**Coming Next Month** February 1 Xeriscape Gardening, Section I*	February 3 Watercolor Painting*, Mordiford Love Token, Sec. I February 4 Xeriscape Gardening, Section II*	February 5-6 "Landscaping with Wild-flowers and Native Plants" February 6 Mordiford Love Token, Section II, Beginning Ikebana Lessons*	February 7 Basketry Workshop: Heart-Shaped Basket February 9 Bonfils-Stanton Lecture Series: John L. Creech, Appalachian Basketry Techniques*	February 10 Landscape Design for Colorado Homeowners* February 11 Hawks, Owls and Bald Eagles* February 15 Beginning Bonsai*	February 20 Art in Nature*, Know and Grow Orchids* February 27 Mounting Bromeliads Workshop

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at Denver Botanic Gardens. Here is a listing of those groups and a ***general*** *indication of when they usually meet. For more specific meeting times and locations as well as information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 575-3751.*

African Violet Society, *4th Thurs. of 7 months;* ***Bonsai Society,*** *1st & 3rd Tues.;* ***Cactus & Succulent Society,*** *2nd Tues.;* ***Civic Garden Club,*** *1st Fri.;* ***Colorado Native Plant Society,*** *4th Wed.;* ***Gloxinia Gesneriad Growers,*** *1st Sat.;* ***Hemerocallis Society,*** *3rd Sun. of 4 months;* ***Ikebana International,*** *4th Fri.;* ***Iris Society,*** *spring & fall dates;* ***Men's Garden Club,*** *4th Thurs.;* ***Mycological Society,*** *2nd Mon.;* ***Rock Garden Society,*** *3rd Wed.;* ***Rose Society,*** *2nd Thurs.;* ***Ultra Violet Club,*** *4th Mon.;* ***Water Garden Society,*** *2nd Sun. of 5 months.*

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-575-3751

January 1988

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Green Thumb NEWS

Denver Botanic Gardens
February 1988
Number 88–2



Dr. John L. Creech

"Japan — A Treasure- house of Wild and Cultivated Plants" February 9

February's guest speaker in the Bonfils-Stanton Foundation Lecture Series recently received two prestigious awards in horticulture. John L. Creech, Ph.D., was presented the Norman Jay Colman Award by the American Association of Nurserymen and the Hutchinson Medal by the Chicago Botanic Gardens and the Chicago Horticultural Society.

Dr. Creech, former Director of the U.S. National Arboretum in Washington, D.C., was presented the Colman Award for his work in horticultural research that culminated from his years in plant introduction and his research with plants native to Japan. AAN President R.J. Hutton presented the award to Dr. Creech and stated that he "personally engineered Japan's Bicentennial gift to the U.S. of an outstanding bonsai collection, added to the National Arboretum's herb garden, and developed a detailed plan for future arboretum growth, including a comprehensive visitor's center.

"But above all, he is known for the successes of his many foreign plant explorations and for introducing the best climatically adapted plants from Japan, Russia, Nepal, Taiwan, Yugoslavia and other nations in col-

continued on page 4

Lady Bird Johnson at "Landscaping with Wildflowers and Native Plants" February 5-6

The National Wildflower Research Center is an organization dedicated to the preservation, propagation and use of wildflowers and other native plants throughout the United States. Denver Botanic Gardens shares this philosophy and as a result, shares the sponsorship of "Landscaping with Wildflowers and Native Plants." This 1½-day conference meets at the Brown Palace Hotel, 321 17th Street in Denver, February 5 and 6, from 1 to 5 p.m. on Friday and 9 a.m. to 5 p.m. on Saturday.

Founded by Lady Bird Johnson in 1982, the National Center for Wildflower Research rapidly became the primary national source for wildflower and native plant use information. It evolved from Mrs. Johnson's interest in horticulture, native plants and beautification of public landscapes.

In a recent interview with *Smithsonian,* Mrs. Johnson explained her involvement with wildflowers. She states, "During my life I had seen new residential communities, shopping centers, spaghetti networks of highways cover over what had once been fields of wildflowers. I am not always, everywhere, opposed to development, but it seemed that if we did not make a conscious effort as we built, to preserve and make use of our native plants, we and our descendents would

continued on page 2

DBG Members' Annual Meeting March 2

DBG members meet on Wednesday, March 2, at the Hyatt Regency Downtown, for cocktails, dinner, an annual business meeting and an informative program by Everitt Miller, past president of the American Horticultural Society.

Mr. Miller, Director Emeritus at Longwood Gardens and co-author of *The American Garden Guidebook,* was responsible for the operation of the 1,000 impressive acres of Longwood Gardens from 1979 to 1984. Currently, Mr. Miller serves as a landscape consultant and an accredited horticultural judge. He has written many horticultural articles and presented lectures across the country while visiting many of the best botanic gardens the United States has to offer.

The American Garden Guidebook, a guide to the most magnificent public

continued on page 4

Inside:

Classes page 5



"Landscaping with Wildflowers and Native Plants"

continued from page 1

lose the beauty and the sense of our natural heritage which they provide."

The conference addresses the use of regionally appropriate native plants and their uses in both private and public landscapes. Topics will include federal legislation and highway plantings, wildflower plantings in xeriscape designs, propagation of wildflowers and a panel of experts will provide a question and answer session on what plants to grow, where to obtain them and how to start them. The conference will be packed with valuable information provided by many of the region's most dedicated native plant advocates. Additionally, Lady Bird Johnson will attend.

Registration may still be available at the door on a first-come, first-served basis. Members of DBG and NWRC may attend for $75 and non-members may attend for $85 each. For additional information on the conference, call 331-4000, extension 20.

Are You Trying to Reach Us?

Denver Botanic Gardens has recently received new telephone numbers to accompany a new phone service. Listed below are the ways you can now call the Gardens:

24-Hour Recording	331-4010
Administrative Offices	331-4000
Gift Shop	331-4009
Development Office	331-4040

Additionally, many departments have received new extension numbers. Be aware of this when you ask for individuals by their extension numbers. For example, Pat Pachuta is now extension 54 rather than 27.

Seasonal Gardeners Wanted

Full-time seasonal gardening may begin the 1988 season as early as March and Denver Botanic Gardens is now taking applications for these positions. Gardening experience and the ability to work outdoors all day in the early spring and through the summer are needed. Pay ranges upward from $4 per hour depending on experience and ability. Call the DBG receptionist at 331-4000 for information.

Tributes

In memory of Mrs. Gordon B. Borin
Mr. & Mrs. Earl W. Wilson
In memory of Winona H. Chilcott
Dr. & Mrs. Robert Kosanke
In memory of Mr. and Mrs. E.L. DeLand
Mr. & Mrs. Gene Thomas
In memory of Alvin H. Haberland
Mr. & Mrs. Herbert Jones
In memory of Mrs. Stephen Hart
Mr. & Mrs. John C. Mitchell II
In memory of James Holmes IV
Mr. & Mrs. Donald C. Campbell
In memory of Harold Taft King
Mr. & Mrs. John A. Atkinson
Mr. & Mrs. Harlan H. Holben
In memory of Walter Koch
Mr. & Mrs. John C. Mitchell II
In memory of Mrs. J. Albert (Pauline) Mitten
Mr. & Mrs. Lawrence A. Long
In memory of Annie S. Nelson
Mina C. Burg
Frigg Lodge No. 69, J.O. Vikings
Inger L. Kluth
Lena Lake
C. Henry Nelson
In memory of Greg Pannebaker, Jr.
Charles W. Ennis
In memory of Ranger Rogers
Mr. & Mrs. Herbert C. Jones
In memory of Ronald Simonson
Dr. & Mrs. Robert Kosanke
In memory of Hugh B. Terry
Mr. & Mrs. Harlan H. Holben

Green Thumb News
Number 88–2 February 1988

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 331-4000.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than January 20 for March, February 19 for April and March 18 for May.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 331-4000 for details.

Accredited by the American Association of Museums



The Board of Directors of Denver Botanic Gardens cordially invites you to attend The Annual DBG Members' Meeting and Dinner

Wednesday, March 2, 1988
at the
Hyatt Regency Downtown
17th and Welton

Cocktails 6 p.m.
Dinner 7 p.m.
Annual Meeting 7:45—8:15 p.m.
Program 8:15 p.m.

"Great Gardens of America"
by Everitt Miller

Reservations $20.00 per person
Cash Bar

Reservations must be returned to DBG no later than February 24.
Hyatt Regency Parking $2.00

Please return the following form to Denver Botanic Gardens, 909 York Street, Denver, CO 80206



Members' Annual Meeting Reservation Form

Enclosed is $_____ for _____ member(s) for the Annual DBG Members' Meeting and Dinner.

Name _____

Address _____

City _____ State _____ Zip _____

Daytime Phone _____

Evening Phone _____



Everitt Miller

"Japan — A Treasure-house of Wild and Cultivated Plants"

continued from page 1

laboration with Longwood Gardens and the National Geographic Society."

The Hutchinson Medal acknowledged Dr. Creech's great personal efforts and his many years of research. He began as a horticulturist in the Office of Plant Exploration in 1947 and was rapidly promoted from horticulturist-in-charge to the director of the U.S. National Arboretum in 1973. He has been involved in at least nine plant exploration trips to Japan and some of his major plant introductions have included the Bradford ornamental pear and 'Whitespire' borer-resistant birch.

Of the program, "Japan — A Treasure-house of Wild and Cultivated plants," Dr. Creech states, "We owe much to the empire of Japan for the wealth of plants that form the backbone of gardens in a major portion of the U.S. Visitors to those verdant islands are often overwhelmed by the diversity of plants so skillfully used in tiny Japanese gardens. They are equally impressed by the magnificence of the array of outstanding garden plants that inhabit the diverse natural areas that shift from broad-leaved evergreen forests along the coast to alpine meadows replete with azaleas and other rhododendrons.

"As E.H. Wilson once remarked, 'It is a plant collector's paradise' and that is what my role in Japan has been since 1955. Through a series of slides, you will join me in a series of plant hunting trips that reach to the farthest reaches of Japan and to the highest volcanic cones where azaleas in full bloom simply drip color over the fog-laden volcano rim. But plant hunting in Japan is not all accomplished in the wild for the small nurseries such as in the city Kurume number in the thousands and are stocked with more variants of their native plants than most Western botanic gardens.

"This is Japan seen through the eyes of a plant hunter during six plant collecting trips that in total extended for more than two years and numbered several thousand collections."

Members may attend this lecture at a cost of $2.50 each and non-members are welcome at individual programs for $5 each. Please return the registration form in the Bonfils-Stanton Lecture Series brochure mailed to all members or use the Education department registration form in this newsletter. If you are bringing guests, be sure to include their names as well. If space is available, reservations will be sold at the door on a first-come, first-served basis. The lecture will begin at 7 p.m. on Tuesday, February 9.

Thanks for Thinking of the Gardens

Just recently the Gardens has been the recipient of two 35mm slide collections and a personal herbarium.

The first gift of slides came to the Gardens from the estate of Lucien (Lu) Long, who resided in Colorado Springs. One of his lifetime hobbies was photographing wildflowers and over the past 30 years he amassed a collection of approximately 13,000 slides.

They include the original photos used to illustrate *Orchids of Colorado,* which his brother, Dr. John Long, published through the Denver Museum of Natural History. Lu Long was particularly interested in native orchids and readily shared information with our Herbarium staff on these and other plants. Other slides record activities and plants seen on several DBG tours to Alaska, Arizona, New Zealand and Bermuda. A "living legacy" to Lu Long can be found in Colorado Springs where he created the Native Garden for the Horticultural Arts Society.

Our second gift of slides (4,000) came from Bill and Berta Anderson, volunteers of many years service in the Kathryn Kalmbach Herbarium. The Andersons now reside in California. Included in their gift are two complete programs, "From Plains to Peaks" and "Colorado Through the Seasons." In addition to their many excellent slides, Mrs. Anderson also collected plant material for herbarium specimens. Her collection of 2,000 sheets has been donated to our Kathryn Kalmbach Herbarium adding substantially to the scientific value of our collection, especially plants native to Colorado.

The generosity of these donors is multiplied many times over as their collections are used to educate others about our native plants of Colorado. We are deeply indebted to them for their thoughtfulness in making Denver Botanic Gardens the recipient of their gifts.

Andrew Pierce
Assistant Director

DBG Members' Annual Meeting

continued from page 1



gardens in the eastern United States, was written by Mr. Miller and Jay S. Cohen as a practical, easy-to-use directory that covers more than 339 spectacular gardens in 28 states and four provinces. Appropriately, Mr. Miller's presentation will be "The Great Gardens of America."

The cash bar opens at 6 p.m., dinner begins at 7 p.m. and the business meeting starts at 7:45 p.m. Mr. Miller's presentation is scheduled for 8:15. The Hyatt Regency Downtown is located at 17th and Welton (formerly the Fairmont Hotel). Parking will be available in the Hyatt's parking lot for $2. Dinner is $20 per person and there will be a cash bar.

The 1988 Members' Annual Meeting will be held at the Hyatt Regency instead of DBG's John C. Mitchell II Hall because of scheduled roof maintenance in the Lobby Court.

Reservations for the dinner must be received by February 24. Use the reservation form on page 3, and mail it to:
Members' Annual Meeting
Denver Botanic Gardens
909 York Street
Denver, CO 80206

For additional information, call the Membership department, at 331-4000, extension 22.

Xeriscape Gardening

(seven sessions)
Section I: Mondays, Feb. 1, 8, 15, 22, 29, March 7 from 5 to 7 p.m. and field trip on Sat., March 12 from 9 a.m. to noon
Section II: Thursdays, Feb. 4, 11, 18, 25, March 3, 10 from 7 to 9 p.m. and field trip on Sat., March 12 from 1 to 4 p.m.
Classroom C
Please indicate your section on the registration form.

Reconsider traditional landscaping and use "xeriscape" or dryland concepts to add a variety of interesting plants to your garden. Learn about their different habitats, from the desert to the grasslands, and apply this information to grow these plants successfully.

This course will include design principles and the culture and maintenance of a wealth of plants with special emphasis on the non-traditonal. Curl-leaf mountain mahogany, rabbitbrush, cliff rose and paper flowers are all examples of beautiful yet untapped dryland plants that Colorado has to offer.

Through slides, a tour of DBG, and the development of a class study problem, students will develop an appreciation of our natural resources and a landscape that incorporates this awareness.

Instructor: Gayle Weinstein

Fee: $60 members/$66 non-members

Landscape Design for Colorado Homeowners

(ten sessions)
Wednesdays, February 10, 17, 24, March 2, 9, 16, 23, 30, April 6, 13
7 to 9 p.m. Classroom B

This course will cover basic horticulture and design principles to help you create a landscape that is functional, low-maintenance, water-efficient and beautiful. You will also learn about a variety of native and common plant materials, from perennials to trees, all for use in Colorado. Discuss how to deal with troublesome landscape features such as poor drainage, noise and unsightly views.

Students will also learn about phasing landscape installations as well as what to look for if someone else does the work. Other topics include decks and rock gardens, insects and disease in the landscape and maintenance and irrigation.

Through slide lectures, field trips, input from local professionals and work with each person's landscape, students will renovate or create new "living spaces." Come with a 24 by 36-inch drawing board, notepaper, two pencils, eraser, engineer's triangular ruler and all of your ideas.

Instructor: Anna Thurston is a CSU graduate in landscape horticulture design. She has owned a landscape design and architectural firm for five years and is presently studying landscape architecture.

Fee: $80 members/$88 non-members

Hawks, Owls and Bald Eagles

(three sessions)
Thursdays, Feb. 11, 18 from 6:30 to 8:30 p.m. in Classroom A and Sunday, Feb. 21 field trip from 9 a.m. to 3 p.m.

Do you realize that bald eagles are found during the winter in Colorado along the Platte River and the surrounding Boulder area?

This course will emphasize specific raptor identification and behavior beyond the normal field guides. Introductory sessions cover detailed identification characteristics of these birds of prey. The field trip will depend on where the largest population of hawks are this year. Please bring a field guide to the birds to the first meeting.

Meet: Participants will discuss the field trip meeting place and carpooling during class.

Instructor: Tina Jones is a board member of the Colorado Field Ornithologists and a naturalist/biologist with extensive birdwatching experience throughout the United States.

Fee: $24 members/$26.50 non-members

Beginning Bonsai

(three sessions)
Mondays, Feb. 15, 22, 29
7 to 9:30 p.m. Classroom B

This introductory course will cover the historical and cultural techniques of bonsai, the art of creating dwarf



CLASSES

Winter
1988
Denver Botanic Gardens

trees and shrubs. Instruction on styling, training, potting and general care of bonsai will be included.

Each student will take a completed bonsai home and all materials will be provided.

Instructors: Keith Jeppson, past president of the Rocky Mountain Bonsai Society, is an experienced bonsai hobbyist of 16 years. Harold Sasaki is a commercial bonsai grower with 18 years of experience. Both are capable instructors.

Fee: $52 members/$57 non-members (includes a $22 materials fee)

Limit: 15

Rock Garden Construction

(two sessions)
Thursdays, February 18, 25
7 to 9 p.m. Classroom B

Although rocks form a very conspicuous element in the Western landscape, many gardeners wonder how to incorporate them effectively into their gardens.

In the first session, students will be shown examples of the appropriate use of rocks in a variety of home gardens and will discuss some of the dos and don'ts of rock garden construction. A list of suppliers and their wares will be provided.

In the second session, participants will have two opportunities to build miniature rock gardens and have their work critiqued constructively.

Instructor: Panayoti Kelaidis

Fee: $16 members/$17.50 non-members

Limit: 18

Know and Grow Orchids

(three sessions)
Saturdays, February 20, 27, March 5
9 to 11 a.m. Classroom C

Discover the fantastic orchid family and their basic cultural requirements in this three-session course. Following an introduction to the natural and human history of the orchids, participants will learn how to develop a good collection for their homes and greenhouses.

Fundamentals of soil media, watering and fertilizer will be covered through lectures and demonstrations. Each student will have the opportunity to take a division home following a hands-on dividing and repotting session.

Instructor: Botanist Horticulturist Larry Latta

Fee: $24 members/$26.50 non-members

Limit: 18



Tillandsia x 'Emilie'

An Alpine Miscellany

(four sessions)
Thursdays, March 3, 10, 17, 24
7 to 9 p.m. Classroom B

Local gardeners are discovering that there are many exciting new plants available that can provide a long season of bloom and interesting textures throughout the year. Attend the series or choose those that suit your individual needs and learn to add these gems to your garden.

Tuesday, March 3
Garden Architecture: Dwarf Conifers and Shrubs

Dwarf conifers have been a popular feature in European gardens and on both coasts of the U.S. for many years. Recently, a much broader range of conifers is now sold locally.

Review those that are most widely available throughout the Rocky Mountain region, which perform best and how to grow them. Ways to incorporate dwarf shrubs and conifers into the home landscape will also be covered.

Thursday, March 10
A Woodland Corner: Wildflowers for the Home Garden

Many city gardens have shady areas along the north side of the house or under dense trees or shrubs that are often an eyesore and a maintenance problem. With some soil preparation, mulching and planning, it's possible to transform these areas into an attractive, easy to care for garden filled with unusual ferns and lovely flowers such as rhododendrons, wild ginger and a variety of primroses.

This class will include a slide presentation demonstrating how such a garden can be prepared and students will receive plans including a list of 30 basic woodland plants that are widely available and recommended for growing in the Denver area.

Thursday, March 17
Rocky Mountain Alpines: Western Wildflowers for the Home Owner

Traditional rock gardens consist of alpines from the Alps or other relatively humid, maritime mountain ranges. Many of these perform poorly in Colorado without considerable irrigation. Numerous native rock plants are far better suited to our conditions, however.

Learn about the best penstemons, eriogonums, phloxes and the choicest native daisies now available in the trade. Students will be able to select several seed packets of native wildflowers to grow at home.

Thursday, March 24
Alpine Miniatures: Tiny Plants for Troughs and Containers

In recent years, nurseries in the Denver area have begun to grow and import more and more unusual alpines and wildflowers. Many of these, such as gentians, androsaces and saxifrages, are too small to grow successfully in the open garden. Why not try growing some of these in a container? In this class, several different kinds of troughs (containers for growing alpines) will be demonstrated, and a variety of miniature rock plants will be displayed for you to compare—and you can even take one home.

Instructor: Panayoti Kelaidis

Fee: $30 members/$33 non-members for the series of four programs or $9 members/$10 non-members for each individual class. If you are attending individual programs, be sure to include their dates on the registration form.

Mounting Bromeliads Workshop

(one session)
Saturday, February 27
9 to 11 a.m. Classroom A

Through lecture and demonstrations, learn the basic care of epiphytic, or tree-dwelling, bromeliads. In a hands-on session, students will have the opportunity to mount a small bromeliad on cork bark to take home. All materials are provided.

Instructor: Gary Davis is a gardener florist at DBG whose responsibilities include the bromeliad and orchid collections.

Fee: $15 members/$16 non-members (includes $7 for materials)

Limit: 15

Beginning Ikebana Lessons

(four sessions)
Saturdays, February 6, 13, 20, 27
9:30 to 11:30 a.m. Classroom B

In this introductory course, students will view slides and gain a preliminary understanding of four schools of arranging: Ikenobo, Chiko, Ohara and Sogetsu. They will practice and take home beginning styles of light, airy arrangements using spring flowers such as irises and pussy willows.

Instructor: Joan Wooldridge is a certified teacher of Sogetsu with instruction in the schools of Ohara and Ikenobo. She recently returned from the Fifth World International Ikebana Convention in Kyoto where she served as the official delegate from the Denver chapter.

Fee: $44 members/$47 non-members (includes $12 for flowers). Materials such as containers and flower holders will cost approximately $27-40 and are available in the DBG Gift Shop.

Limit: 12

Birds and Plant Associations of the Southwest

(three sessions)
Mondays, March 7, 14, 21
6:30 to 8:30 p.m.
DBG's Morrison Center

View slides of spectacular natural areas of the Southwest such as Big Bend National Park, Organ Pipe National Monument, Capitol Reef National Park and Colorado National Monument along with other sites to learn the specific birds and plants of this region.

Do you look for chestnut-collared longspurs in blue grama grass or in crested wheatgrass in Colorado? Can you identify these grasses along with sagebrush, mesquite and palo verde? Learn Colorado bird and plant associations and vegetative patterns and habitats associated with particular bird species of the Southwest.

Learn more than just the names of your favorite birds and plants!

Instructor: Tina Jones is a wildlife instructor who teaches at the University of Colorado, the Denver Museum of Natural History and DBG. She is an active birder with many years of field experience.

Fee: $24 members/$26.50 non-members.

Art in Nature

(five sessions)
Saturdays, Feb. 20, 27, March 5, 12, 19
2 to 3:30 p.m. Classroom A

In this course, slide presentations will illustrate how different artists at different times viewed nature.

Compare Leonardo da Vinci's meticulous drawings of plants to the large flower studies of Georgia O'Keefe. Contrast the romantic excitement of Turner's seascapes and the work of the French impressionists. Enjoy Monet's Giverny gardens in all their variations of glorious color. Feel Van Gogh's virility in his sunflowers, Cezanne's majesty in the St. Victoire studies and the joie de vivre of Matisse.

Instructor: Oksana Ross, Ph.D., studied at New York University and Columbia University and has over 30 years of teaching experience. Dr. Ross is a life member of the Arts Students League of New York where she studied under Hans Hofman, Will Barnett and Edgar Whitney.

Fee: $40 members/$44 non-members

Watercolor Painting

(five sessions)
Wednesdays, Feb. 3, 10, 17, 24, March 2
9:30 a.m. to noon Classroom B

Explore the sparkle and delicacy of watercolor painting while enjoying the natural setting of Denver Botanic Gardens. This course will cover the basic materials and techniques of watercolors with emphasis on the freedom of personal expression.

Come prepared with supplies. You'll need: a 1½-inch flat brush, a #10 round brush, watercolor paper, tissues, container for water, plastic palette and cake or tube watercolors.

Instructor: Lynette Swanson-O'Kane is a graduate of the Philadelphia College of Art and a professional artist with national representation of her work.

Fee: $50 members/$55 non-members

Limit: 12

Appalachian Basketry Techniques

(five sessions)
Tuesdays, Feb. 9, 16, 23, March 1, 8
6:30 to 10 p.m. except Feb. 9 when class begins at 6 p.m.
DBG's Morrison Center

Learn the traditional Appalachian egg basket and some of its variations. These gracefully shaped baskets originated in Scotland and came to America with the Highland settlers. Students will learn this rib and split technique in a variety of shapes and can expect to complete one basket each session.

Please bring kitchen or garden shears, awl, jackknife, measuring tape, pinch-type clothespins, pencil and an old towel to class.

Instructor: Elaine Morrison

Fee: $95 members/$105 non-members (includes $35 for the construction of five baskets).

Limit: 12



Botanical illustration by Instructor Rob Proctor

Basketry Workshop: Heart-Shaped Basket

(one session)
Sunday, February 7
9 a.m. to 5 p.m.
DBG's Morrison Center

Students in this class will create a traditional Appalachian heart-shaped basket. Using flat reed, they will weave an 8 by 5-inch basket using the square to round technique. This basket can be made with a relatively open or closed base and an optional handle.

Please bring a sack lunch, pruning shears, a sharp knife and a towel to class.

Instructor: Elaine Morrison is an experienced basketry instructor with four years of hands-on experience.

Fee: $30 members/$32 non-members (includes $10 for materials)

Limit: 12

Wheat Weaving Workshop: Mordiford Love Token

(one session) **10 a.m. to noon**
Section I: Wed., February 3
Section II: Sat., February 6
DBG's Morrison Center
Please indicate your section on the registration form.

Create a unique, heart-shaped wall hanging for your home or that special someone. Students will learn the seven straw plait for this design.

Attendance at a previous wheat weaving course is necessary. Please bring scissors, heavy thread and a ruler to class.

Instructor: Maureen McGowan is a horticultural instructor and consultant who has taught various craft classes, including wheat weaving, at the Chicago Botanic Gardens as well as DBG.

Fee: $11 members/$13 non-members (includes $3 for materials)

Limit: 12



House Blessing by Maureen McGowan

Wheat Weaving Workshop: Spiral Woven Wreath

(one session) **10 a.m. to noon**
Section I: Wed., March 2
Section II: Sat., March 5
DBG's Morrison Center
Please indicate your section on the registration form.

Expand your knowledge of working with wheat. Learn to make a wreath or "bow and arrow" using the spiral weaving technique.

Attendance at a previous wheat weaving course is necessary. Please bring scissors, heavy thread and a ruler to class.

Instructor: Maureen McGowan

Fee: $11 members/$13 non-members

Limit: 12

Wheat Weaving Workshop: House Blessing

(one session) **10 a.m. to noon**
Section I: Wednesday, April 20
Section II: Saturday, April 23
DBG's Morrison Center

Learn to make a traditional house blessing ornament to hang on your door to greet your guests.

Attendance at a previous wheat weaving course is necessary. Please bring scissors, heavy thread and a ruler to class.

Instructor: Maureen McGowan

Fee: $11 members/$13 non-members (includes $3 for materials)

Limit: 12

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206

Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 331-4000.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes_____

Name_____

Address_____

City_____ State_____ Zip_____

Daytime Phone_____ Evening Phone_____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

L I B R A R Y

L I N E S

Helen Fowler Library
Volume 11, No. 1
February 1988

Librarian:
Solange
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Controlling Turfgrass Pests

By Malcom C. Shurtleff, Thomas W. Fermanian and Roscoe Randell. A Reston Book, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1987. $25.95. SB 608 T87 S48 1987.

This excellent book on turfgrass management identifies the emphasis of the text in the introduction: "Successful turfgrass management is an art based on sound scientific knowledge." This book should be a must for anyone who is interested in turfgrass pests.

Pictures line the inner front and back covers and diagrams are used frequently in the text. The diagrams and sketches are very detailed and should be helpful in the identification of insects, weeds or diseases.

Throughout the book, the emphasis is on moderation — of fertilization, irrigation and pesticides. Cultural control of turfgrass pests is stressed, but detailed tables of appropriate pesticides are also included.

The first two chapters briefly cover all the aspects of turfgrass management. Each chapter begins with an overview of what the pest is, how it is identified and classified, and a key for identification.

Then, immediately, we are into detailed chapters on the various pests that attack turf beginning with weeds. The number of weeds discussed is impressive and very inclusive, including many weeds not yet found in Colorado. Tables 3.1 to 3.5 list preemergence and postemergence herbicides, the weeds controlled, tolerant turfgrass and rates.

After the key to insects, many are described, including the nuisance insects, such as millipeds, sowbugs, ticks and fleas. As with the weeds, many of the insects specified here are not current pests in Colorado. Also included are the sometimes pesty rodents and mammals. Table 4.1 lists insects, their chemical controls and comments.

The difference between infectious and non-infectious diseases is explained well and, to me, highlights the dilemma of disease identification, treatment and control. So many diseases can be controlled or prevented through proper turfgrass maintenance, reducing the use of fungicides. There is a good key for identification plus a table of cultural control methods. The diagrams of the fungal spores are well done. The background of each disease is covered, as well as its symptoms and disease cycle.

Included is a chapter on methods of identifying turfgrass problems and again the control methods stress cultural techniques. There is also a section on problems that can arise from chemical overuse.

A book such as this must include a chapter on calibration of equipment and equipment choices. Chapter six includes calibration techniques and examples, geared more for equipment used by landscape professionals and those maintaining large acreages.

The appendixes and glossary are nice touches. The appendixes provide many tables for calibrations, calculations and conversions, plus the locations and addresses for all the land grant universities and Agricultural Experiment Stations in the United States.

The more I read this book, the more impressed I became. For someone interested in slightly more information than available in the CSU *Service-in-Action Bulletins,* this book is ideal. Plus, the book offers more facts and technicalities for those wishing to explore the pest in greater detail. I am so impressed with this book, I may have to buy my own copy!

Dorothy Borland





THE REVIEWERS
Dorothy Borland—Turfgrass Consultant

Katherine Johnson—Assistant Librarian, DBG

Andrew Pierce—Assistant Director, DBG



Healthy Harvest II: A Directory of Sustainable Agriculture & Horticulture Organizations 1987-1988

Edited by Susan J. Sanzone, Jenny Burman and Mary Agnes Hage. Potomac Valley Press, Washington, D.C., 1987. $10.95. S 605.5 H42 1987 Ref.

In 1985, the editors of *Healthy Harvest* produced its first edition, a directory of over 300 organizations involved in "preserving and expanding resource-enhancing, spiritually fulfilling, economically feasible food production and distribution." This second, biennial edition with 600 organizations, focuses on those in the United States, but includes others from all parts of the world. The missions and services of most of these are described. They teach methods through conferences, classes and workshops, work on agricultural policy, develop the technology, or share information through publications. Many are involved in several of these activities.

This fine directory grew out of a research paper for the National Institute for Science, Law and Public Policy in which sustainable agricultural agencies were identified. The few that were already known were contacted and asked to send information on others that they knew existed. In this way a much larger community of agencies involved with conservation of resources in the production of healthy food was identified and it was greater than anyone had realized. The need for preserving this information and continuing the newborn network became apparent. In her 1987 introduction, Mary Agnes Hage tells of a sense of hopefulness generated by the inventiveness, enthusiasm and spirit of cooperation among the participants.

Organizations are listed in alphabetical order with subject and geographical indexes. If you are interested in natural, organic gardening, you will find reading through the names and descriptions both informative and encouraging. Much is being done in this very active field. If you happen to be connected with an organization that belongs in this directory, but has not yet been contacted, the handy participator's form in the back can assure inclusion for the next edition and keep it the valuable reference resource that it is.

Katherine Johnson

The Year at Great Dixter

By Christopher Lloyd. Viking, New York, 1987. $24.95. SB 466 G8 L48 1987.

"Oh to be in England now that April's there" has no meaning for Christopher Lloyd. This book is an expression of the joy of living with a diversity of plants, built up over several decades. No group of plants seems to have escaped attention, from the lowliest of grasses to the noblest of oaks that were planted centuries before. *The Year of Great Dixter* is a superb anthology of a man's dreams and expressions, of contrast, form and color, so cleverly intertwined.

The latest in a long series of books, this is still, without doubt, one of the easiest to read, a bedside or table book for anyone who has dabbled in horticulture. Beautifully illustrated by the author and Pamela Toler, whose creativeness in bad weather photography is almost surrealistic, it is a book that always brings a welcome freshness.

Plants are viewed for their practicality and you must not be afraid to weed out what you have to. More importantly, "they should look well together in their context." Size and season have to be reduced for our climes. For the English gardener, hardiness does not impose the limitations we endure. So don't jump up immediately and say, "I want this and that." Choose a few of the book's beauties, ask and experiment.

Looking at Great Dixter's red tile roofs and large chimneys and "listening" to the vagaries of English weather, make them come to life in this delightful book. They can best be summed up by Mr. Lloyd's own words, "Besides you're not living if you can never stop to look and listen." A most enjoyable and readable volume for the dreamer and plantsman alike — there are plants almost talking to you on every page.

Andrew Pierce



Gardening Tips for February

February is a difficult month to select gardening tips for because so much of what applies at this time is either a carryover from January or equally appropriate for March. This time of year represents the doldrums of winter and tantalizes the energies of spring.

At this time, branches of early flowering shrubs and trees may be cut, brought inside and forced into early bloom. The closer the plant is to its natural flowering time, the easier it is to force. Forsythia, flowering quince, pussy willow and alder flower earlier than crabapple, redbud and cherry and will force easier this time of year.

Pruning is also a timely activity. While plants are bare of leaves, their growth patterns and forms can be studied as well as reviewed. A word of caution: Because other gardening activities are less intense, pruning **should not** become a pursuit to keep busy. It should be selective and planned because in itself, pruning is a dwarfing process.

For the eager gardener, cold frames offer the opportunity to start vegetable crops such as lettuce, radishes and spinach earlier than their normal season. But they do need close attention. The sun warms the soil in the day and what is radiated off at night keeps the plants warm. The skill lies in manipulating the ventilation so that temperatures do not exceed 70 degrees in the day or fall below 40 degrees at night.

In February, there are other tasks that should be considered routine, such as making sure mulches and other protections are still covering the plants, that the evergreen boughs are not next to tree trunks sheltering rodents as they nibble on the bark, or that small plants have not been heaved from the soil by alternating freezing and thawing of the soil moisture.

The most challenging task for the serious gardener is to be continually observant, alert and aware of environmental happenings and conditions such as winter storm damage, matted plant debris, insects and egg masses and deal with them on a timely basis.

As February draws to a close, events often associated with spring are crocus, iris and other early spring plants breaking ground, migrant birds returning and various buds beginning to swell.

The color of evergreens is beginning to sharpen and some noticeable differences in gardening art have become apparent in the Rock Alpine and Japanese Gardens. The Rock Alpine Garden has a wide selection of conifers. They vary in size, color and form and have been selected to create winter interest. The evergreens in the Japanese Garden also dominate the scene, yet they are, for the most part, of one species, *Pinus ponderosa*.

Rocks in the Rock Alpine and Xeriscape Gardens are displayed to duplicate nature. Those in the Japanese Garden are often used as individual sculptures.

So much is happening throughout the year with flowers blooming, fruit ripening and foliage turning. Now, while these gardens are quieter, it is easier to observe their framework. They display an art form that attempts to represent a piece of nature in miniature.

February is an active month. It is just one of 12 that completes a gardening story.

Gayle Weinstein
Botanist-Horticulturist
Denver Botanic Gardens



Cold frames allow an early start for vegetables.

Down the Garden Paths in February

February and the annual march of iris blossoms have started here at the Gardens. You can see these first delicate flowers braving our unpredictable late winter weather in the Rock Alpine Garden. These are *Iris danfordiae* (in shades of blue and purple) and *Iris reticulata* (brilliant yellow). Both are hardy, fragrant miniatures from the Near East. Blossoming among stones and other, still dormant plants they seem to proclaim, "Spring can *not* be far behind!"

East of the Alpine House you will also find *Viola corsica* and, perhaps, if the weather has been mild, the cascading golden branches of *Jasminum nudiflorum,* which in color and form may be mistaken for a precocious forsythia.

By February nearly all of the spring catalogs have arrived in the Helen Fowler Library. We've received a truly amazing collection of these enticing, informative gardening guides this year.

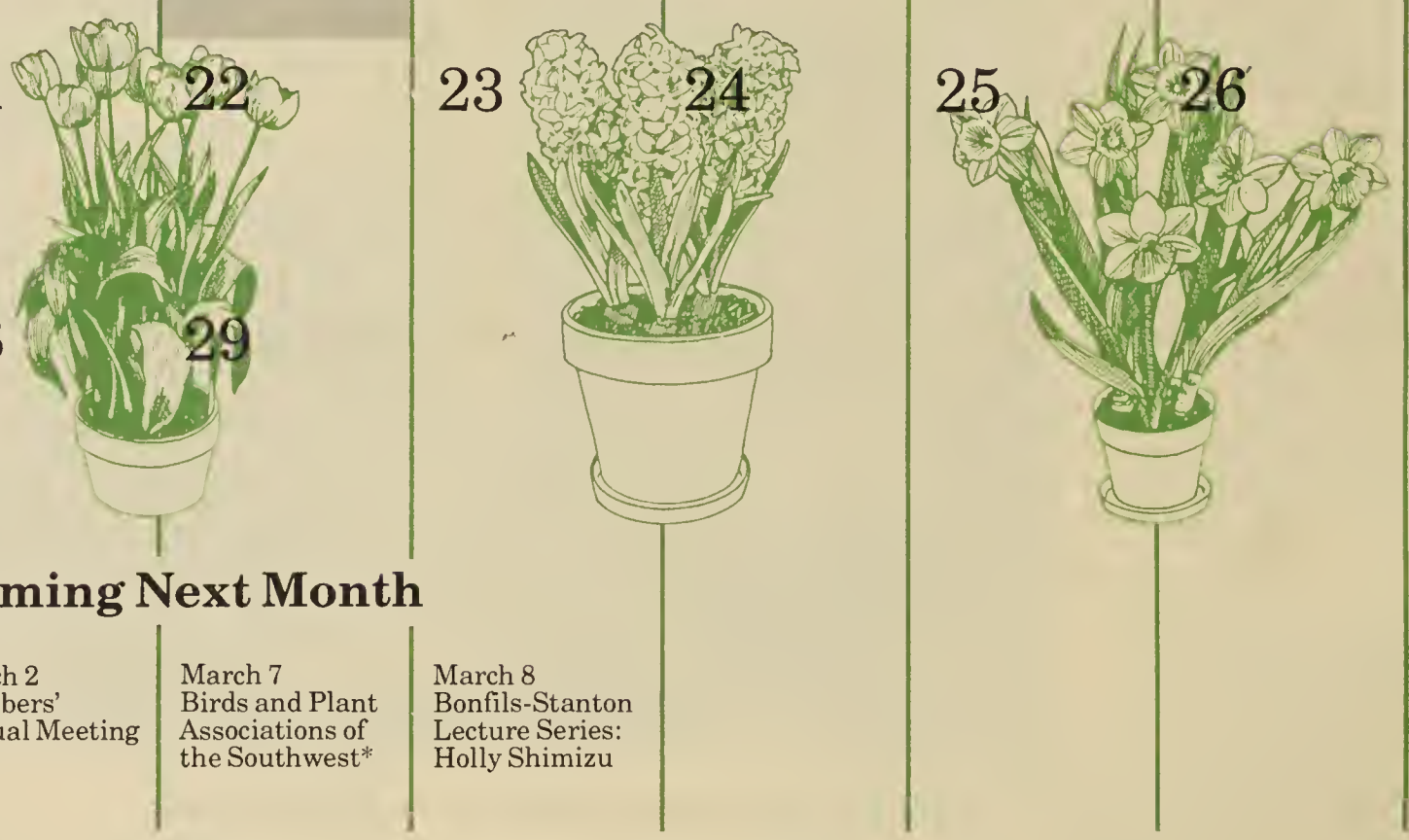
If on the day you visit the Gardens you first find the weather too blustery for a walk outdoors, take the opportunity to acquaint yourself with these offerings from plant vendors throughout the world. They just might list the long-sought seeds or plants you couldn't find before.

Then, after you've noted names, addresses and plant wishes in the cozy library, try again for an outdoor stroll. Surely the weather will have changed and you can discover in the Gardens some early blooming plants not mentioned here.

Larry Latta
Botanist-Horticulturist
Denver Botanic Gardens

CALENDAR FEB

S	M	T	W	T	F	S
**First meeting of a class with more than one session*	1 Xeriscape Gardening, Section I*	2	3 Watercolor Painting*, Mordiford Love Token, Sec. I	4 Xeriscape Gardening, Section II*	5 February 5 - 6 "Landscaping with Wild-flowers and Native Plants"	6 Mordiford Love Token, Section II, Beginning Ikebana Lessons*
7 Basketry Workshop: Heart-Shaped Basket	8	9 Bonfils-Stanton Lecture Series: John L. Creech, Appalachian Basketry Techniques*	10 Landscape Design for Colorado Homeowners*	11 Hawks, Owls and Bald Eagles*	12	13
14	15 Beginning Bonsai*	16	17	18	19	20 Art in Nature*, Know and Grow Orchids*
21	22	23	24	25	26	27 Mounting Bromeliads Workshop
28	29					



Coming Next Month

March 2 Members' Annual Meeting	March 7 Birds and Plant Associations of the Southwest*	March 8 Bonfils-Stanton Lecture Series: Holly Shimizu

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at Denver Botanic Gardens. Here is a listing of those groups and a ***general*** *indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 331-4000.*

African Violet Society, *4th Thurs. of 7 months;* ***Bonsai Society,*** *1st & 3rd Tues.;* ***Cactus & Succulent Society,*** *2nd Tues.;* ***Civic Garden Club,*** *1st Fri.;* ***Colorado Native Plant Society,*** *4th Wed.;* ***Gloxinia Gesneriad Growers,*** *1st Sat.;* ***Hemerocallis Society,*** *3rd Sun. of 4 months;* ***Ikebana International,*** *4th Fri.;* ***Iris Society,*** *spring & fall dates;* ***Men's Garden Club,*** *4th Thurs.;* ***Mycological Society,*** *2nd Mon.;* ***Rock Garden Society,*** *3rd Wed.;* ***Rose Society,*** *2nd Thurs.;* ***Ultra Violet Club,*** *4th Mon.;* ***Water Garden Society,*** *2nd Sun. of 5 months.*

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-331-4000

DBG Members' Annual Meeting
March 2

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Green Thumb NEWS

Denver Botanic Gardens
March 1988
Number 88–3



Holly Shimizu

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"The Blending of Herbs and Old Roses"—March 8

Holly Shimizu brings the Bonfils-Stanton Lecture Series to a close with the "Blending of Herbs and Old Roses" on March 8. This final lecture has been moved to the Denison Auditorium at the CU Medical Center, 4200 East Ninth Avenue, due to roof construction in John C. Mitchell II Hall. It begins at 7:15 p.m. rather than 7 p.m. to accommodate participants delayed by this change.

Mrs. Shimizu was recently recognized by The Herb Society of America for her outstanding achievements in horticulture and was curator of The National Herb Garden at the U.S. National Arboretum from 1980 until early 1988. In early January she began a new and challenging position at the U.S. Botanic Garden as Public Programs Specialist. Her bachelor's degree in horticulture was earned at Pennsylvania State University in 1976 and she recently received a master's degree in horticulture from the University of Maryland.

Her love of old roses developed after 1975 when she chose to work at and study closely some of the impressive gardens of Europe. Her exposure included Hillier Arboretum, England; Arboretum Kalmthout, Belgium; and the Royal Horticultural Society's Garden Wisley in England where she was involved in the renovation of their herbaceous borders, formation of their new herb garden and major changes in the rose garden.

In 1980 Mrs. Shimizu joined the U.S. National Arboretum staff and made significant contributions to the development of The National Herb Garden. The Herb Garden is a small, two-acre, relatively new garden (construction began in 1979) and it consists of three individual sections: The Knot Garden, The Historic Rose Garden and The Specialty Garden.

Mrs. Shimizu will discuss combining herbs with old roses to provide an
continued on page 2

New Location for Final Lecture in Series

Please note that due to construction in John C. Mitchell II Hall, the location of the final lecture, Holly Shimizu's "The Blending of Herbs and Old Roses," has been changed to the Denison Auditorium at the CU Medical Center east of Colorado Boulevard at Ninth Avenue.

Denison Auditorium is located in the Old Denison Library, 4200 East Ninth Avenue. There are two entrances to the building. For the most
continued on page 2

"The Blending of Herbs and Old Roses"—March 8

continued from page 1

interesting and complementary blend of color and fragrance. This presentation, the final Bonfils-Stanton Lecture, is open to the public as well as DBG members who may attend at $2.50 each. Non-members are welcome at $5 each. Please return the registration form in the Bonfils-Stanton Lecture series brochure that was sent to all members or use the Education department registration form in this newsletter. If you are bringing guests, be sure to include their names as well. If space is available, reservations will be sold at the door on a first-come, first-served basis. The lecture will begin at 7:15 on Tuesday, March 8, and will provide some exciting, new ideas for renovating old gardens or for new gardens in the planning stages.



Apothecaries' Rose, Rosa gallica var. officinalis, from Diverses Fleurs, by N. Robert, c. 1600.

New Location for Final Lecture in Series

continued from page 1

direct route, take the outdoor stairway located just east of the main building entrance under the south end of the pedestrian bridge at 4200 East Ninth, up to the elevated entrance to the Old Denison Library; inside that entrance, take either set of stairs or the elevator up one flight to the auditorium lobby.

For those who wish to avoid stairs, enter the building lobby at 4200 East Ninth Avenue and take a passenger elevator, located across the lobby from the entrance, to the third floor. At the third floor lobby, a door across from the elevators opens to a small pedestrian bridge that crosses east directly to the auditorium level. At the end of the bridge, turn left.

Parking can be found at Ninth and Clermont, just east of the auditorium entrances in a parking structure. The parking fee is $.85. Correct change is suggested, in case there is no attendant.

We regret any inconvenience caused by this necessary change in location. To accommodate people delayed by this change, this lecture will begin at 7:15 p.m. If you need additional directions, call the Education department, 331-4000, extension 33.

Tributes

In honor of Judith B. Wagner
Mr. & Mrs. H.B. Buck

In memory of Dr. William H. Anderson, Jr.
Arthur & Caroline Beck
La Rue Belcher
Joan M. Dudden
John & Gloria Falkenberg
Solange G. Gignac
Elizabeth Heacock
Arthur & Elizabeth Jackson
Omar & Pat Quade

In memory of Emma Marie Hettinger
Mr. & Mrs. Robert Knickrehm

In memory of Mrs. George (Sue) Kelly
Colorado Nurserymen's Association

In memory of Dorothy K. McGlone
Dale & Anne Andrus
Mr. & Mrs. Mel Bauer
Sharon Cunningham
Mr. & Mrs. Kenneth J. Kennedy
Ms. Ann C. Kyker
R.E. & Claude R. Kyker
Paul & Linda Parson
Douglas & Betty Smith
Mr. & Mrs. John Taylor
Lowell & Charlotte Udy
David O. Watson
Peggy Watson
Diane, Michael & Jessica Yavorsky

In memory of Janet Munro
Minnie M. Baldwin

In memory of Annie S. Nelson
Maj. & Mrs. Kenneth R. Helm

In memory of Mrs. Carl A. Norgren
Mr. & Mrs. Robert A. Felt

In memory of Evelyn C. Stephens
Charlotte N. Ingalsbe

In memory of Kim Sterne
Mr. & Mrs. Bruce Sterne

Orientation Party for New Members April 20

Wednesday evening, April 20, new members will have an opportunity to learn more about Denver Botanic Gardens. Return the reservation form that was mailed to new members or call the Membership department, 331-4000, extension 22, for details.

Green Thumb News
Number 88–3 March 1988

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 331-4000.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than February 19 for April, March 18 for May and April 20 for June.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 331-4000 for details.

Accredited by the American Association of Museums

Rose Symposium at DBG March 19

The Denver Rose Society's 1988 Rose Symposium at Denver Botanic Gardens on March 19 promises to offer a comprehensive course in rose growing throughout the year, with special pointers on horticultural conditions particular to our High Plains/ Rocky Mountain Region.

Lecture topics will include pruning and planting, fertilizing and watering, disease and pest control and exhibiting, propagating and winterizing of roses. Speakers will be drawing upon their years of experience in growing roses under our Colorado conditions. Most are Consulting Rosarians of the Rocky Mountain District, many are rose judges and present or past officers in their local rose societies, and nearly all have grown roses avidly for more than five years.

One talk on the agenda, however, is from the "Novice Point of View" and will be given by newcomer Betsy Cantrell, a rose grower of only 2½ years in Arapahoe County. Other novice rose growers should gain special confidence from her success story, just as they will receive useful information from the more experienced rosarians.

Attendants to the symposium will have ample opportunities to receive information about their individual concerns in the question and answer periods following each lecture. Also, the Society will have available numerous handouts and knowledgeable members who may be approached during the two refreshment breaks.

This Rose Symposium will be held in the Morrison Horticultural Demonstration Center, in Community Gardens Square located on 11th Avenue between Josephine and York Streets. Hours are 9:30 a.m. to 1:00 p.m., Saturday, March 19, and all lectures are open to the public. For more information on this opportunity to learn practical tips from practiced growers, call Denver Rose Society members Opal or Merl Doane at 781-6882.

Cactus and Succulent Show and Sale

On Saturday, April 16, and Sunday, April 17, the Colorado Cactus and Succulent Society will present its annual show and sale at Denver Botanic Gardens.

Watch for more details in the April *Green Thumb News,* but put these dates in your calendar now. You will not want to miss the wide array of interesting plants scheduled for display in John C. Mitchell II Hall.



1987 College Intern Jeffrey Anderson

Volunteer Outdoor Gardeners Needed

Denver Botanic Gardens has a relatively small gardening staff to prepare and maintain the 22 acres of gardens that visitors enjoy so much during the summer. Knowing this, one may ask how the gardens are maintained so attractively.

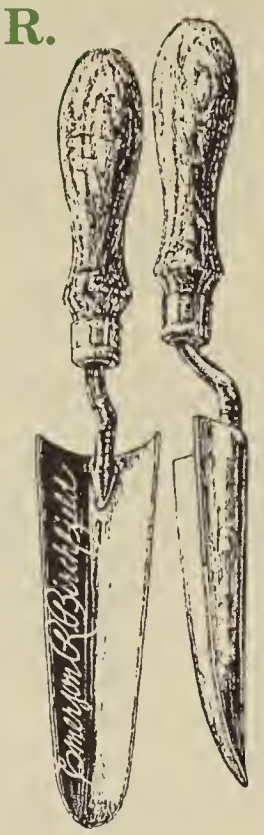
The answer is with our volunteers. If you love gardening and you have recently moved into an apartment or patio home, if you would like to see DBG's gardens from a bug's-eye view and if you would enjoy gaining practical gardening experience from our staff, you should consider yourself a candidate for our volunteer gardening program.

On Wednesday, March 30, from 7 to 8 p.m., at the Botanic House, an orientation meeting will be held. DBG staff will discuss the volunteer outdoor gardening program. They will outline your possibilities and describe key gardens.

Work begins April 12 at 9 a.m., but as the season progresses, the days lengthen and the average daily temperature increases so volunteers can also work in the gardens after work in the evenings.

If you are interested in irises, waterlilies, roses, or other plants or would like a better understanding of certain gardens, all you need to do is show up on March 30 at 909 York Street in the Botanic House. If you would like more information call the gardens and ask for JoAnn Narverud, DBG Grounds Foreman. She can be reached at 331-4000.

Color in our Gardens by Emerson R. Birchfield



Dreary days are the best times to plan, again, the gardens of our dreams. The volunteers working on "The Flowering of Denver," the 39th Annual Plant and Used Book Sale, have been anticipating our needs. The winter-weary gardener would do well to do some reading and planning.

Much of our garden literature has been handed down to us from England. We are at times dismayed when we find a favorite plant or color branded by British writers as too garish. They tend to have a penchant for the pastel. This is all well and good, but consider the climate of the British Isles. Overcast is the norm, ranging from misty to downright foggy. In this pale light, Henry Mitchell tells us "anything more assertive than a snowdrop tends to look like Baghdad in flames."

Not being a scientist, I can't say why the sky is so blue here, but it is very blue, and we have a great abundance of sunshine. Our garden is not one of misty watercolor washes. We use bold, brilliant color and suffer not a twinge of guilt for our gaudy ways. This does not, however, give us a license to kill. We're talking about those scarlet geraniums, the ones that bring a tear to the eye — and not for sentimental reasons.

Using strong color requires a bit of thought. Foregoing this, it is good to pass out sunglasses to your garden visitors. We talked over this problem with several of the division chairpersons from the sale.

Tom Peace, who heads the spring bulbs division, admits particular fondness for *Lilium pumilum,* the Chinese coral lily. Its intensely colored, pendant blossoms appear to have been dipped in wax. He suggests planting the coral lily in association with the silver foliage of *Stachys lanata,* lambs ear, or *Artemisia* 'Silver Mound'. The delicate sprays of *Heuchera sanguinea,* coral bells, are a perfect match for the lily. *Lavandula angustifolia,* lavender, is a pretty contrast, as are many of the campanulas, whose soft purple bells are desirable in the foreground. He recommends similar color schemes with other bright lilies such as the yellow 'Connecticut King' and deep orange-red 'Corina'.

Chairwoman Cari Adams offers some of the most brilliant annual flowers in her division, as well as some of the best advice. She advocates using impatiens of a single color, such as 'Rose Gem', tucked in among shade-lovers such as ferns and hostas. The Gem series is also tolerant of full sun. She makes a strong case for *Gomphrena globosa* or 'Buddy', with its cloverlike heads of bright magenta. It is delightful in beds with a pink theme, being compatible with the pale pink petunia 'Chiffon Cascade', dusty miller, and white or pink *Nicotiana,* flowering tobacco. While we're on the subject, let's learn to pronounce it correctly — *nĭ-kō-shē'-anna.* Say that about three times. We keep hearing *nĭck-ō-tēēn'-ē-uh.* It is one of the most wonderful of annuals, everyone plants it, and we all mispronounce it. We all learned to say chrysanthemum and Federico Peña, so let's get it straight.

We digress — back to the subject of magenta. People tend to wrinkle up their noses and say it with the same tone of voice as "velvet painting." We don't care. It's one of our favorite bold colors. Some folks claim that it's impossible to make a mistake with colors in the garden. Nature paints with a broad brush and a wide perspective; the humble gardener draws from a limited palette, and on a small canvas of his garden can create unequalled havoc. We know. We've done it. Several times.

One of our favorite magenta flowers is often found in the home donations section, which is chaired by Nan Burnett and Lainie Jackson. *Lychnis coronaria,* rose campion, is an old-fashioned perennial with fuzzy gray foliage and five-petaled blooms of the most shocking, joyful magenta. The successful placement of this altogether splendid plant requires careful thought and quiet neighbors. The soft yellows of *Achillea* 'Moonshine', *Coreopsis verticillata* 'Moonbeam', and the aurelian lily 'Moonlight' are all grand companions. It appears that anything with the word "moon" in it is adequate.

Now add a dash of pale pink — the operative word is "pale." Check with John Reber in perennials for *Malva alcea fastigiata,* pink mallow, and with Betty Lou Roberts in roses for the diminutive shrub rose 'The Fairy'. Now get into your "Monet" mood and prepare to make this combination vibrate with a smattering of deep blue, such as *Salvia farinacea, Lobelia* 'Crystal Palace', or perhaps *Delphinium* 'Black Knight'. A potential disaster has been averted with a delicate balance of strong and soft hues.

This brings us to the most crucial question facing the entire gardening public today: "How do we plant our beloved scarlet geraniums without conjuring the image of Baghdad in flames?" We can offer several answers to this burning question. Over in the herb section, chaired by Ellen Glover, possible companions for these geraniums are the scented geraniums and the mahogany foliage of dark opal basil. The mint- and apple-scented varieties have a glaucous cast to them, as well as a trailing habit.

In the Patio division, Katie Dixon pictures white lobelia, the dark-leafed begonia 'Vodka', marguerite daisies, and dusty miller. We would comment that hot pink petunias and bright yellow marigolds are not the best choices.

This discussion reminds us of a good gardening friend, Mr. P., with a passion for color. His garden is a kaleidoscope of revolving color. The bold hues enliven the more timid, and contrasts of foliage and form pull the picture together masterfully. Gray and green foliage prevent the hot colors from igniting the entire lot. We were mighty impressed, until he went totally daft and painted his house pink — he'd never be accepted in England.

(Emerson R. Birchfield is our special correspondent for the "Flowering of Denver." An accomplished gardener, he attributes his success to mulching, composting and not owning a dog.)



Spanish moss, Tillandsia usneoides, in our Conservatory.

Dr. Green Grows

"Dr. Green" is expanding his practice and he's looking for some good, new assistants.

Begun in 1974 to provide an efficient means for attending to the many questions the Gardens receives each week on plant care and related areas, the Dr. Green program now receives over 2,000 inquiries a year during its Tuesday and Thursday afternoon hours. From a single announcement at its inception, it has grown to become an important source of information for Denver's gardening public. This service has always been provided pseudonymously by DBG's horticultural staff, but it has become so successful, assisting with both call-in and walk-in queries, that the Gardens now plans to recruit volunteers to augment its corps of Dr. Greens.

What sort of assistant is the Gardens looking for to help Dr. Green? What we DON'T expect to find is someone who knows ALL the answers. More often than not, assistance to the public is best served by knowing where to help callers or visitors find information, rather than by having ready, specialized answers.

Many of the requests are for non-technical information. In addition to horticultural problems, new Dr. Greens can expect to encounter questions such as the following: What is the name of the small, white-blooming tree behind the peonies at the Gardens? When does the local orchid society meet? Where can I buy lily bulbs? When does the coffee plant bloom in the Conservatory? What plants have interesting leaves for children to draw? Dr. Green often must refer clients to other people for information, sometimes sources here at the Gardens and, at times, elsewhere.

An interesting and extensive educational program is planned this spring for the new Dr. Green volunteers, including training sessions and classes in common horticultural problems. They will not only learn to deal with the questions above, but will receive information on plant care and horticulturally sound solutions to gardening and landscaping problems as well. The nature of the assignment gives the Dr. Greens abundant opportunity to expand their knowledge about plants and about the Gardens. To the volunteers chosen it will be an educational experience useful not only in the Dr. Green program, but in their own gardening efforts, indoors or out.

Are you interested in becoming one of these new Dr. Greens, or do you know of someone who would be? You are invited to participate. A corps of volunteers will be vital to the future success of this plan. Recruitment and training will begin soon.

If you would like to learn more about plants and the growing of plants in Denver and would like to assist the Gardens' Dr. Green on either Tuesdays or Thursdays, one or more times per month, please call Andrew Pierce or Larry Latta at 331-4000 for more details on the program.

Volunteer Opportunities with Jefferson County Open Space

People interested in nature are invited to join Jefferson County Open Space's volunteer naturalist program or the new park host program.

The volunteer naturalist program will begin its third season and new volunteers will join an active group of 65 people. Among the duties are working in the Nature Center on Lookout Mountain, leading nature programs and working on committees to develop special projects.

Training is scheduled to begin by early April. Included will be lectures on natural history topics one evening a week and several Saturday field sessions on Open Space lands.

A new addition to the volunteer naturalist program this year will be park hosts who will be stationed at Open Space parks to speak with visitors and lead impromptu hikes. Park hosts must commit to a minimum of 25 volunteer hours between Memorial Day and Labor Day. Volunteer naturalists are asked to give at least 30 hours annually.

During the 1987 season, volunteer naturalists helped conduct some of the 226 nature programs available to the public. The group donated more than 1,200 hours and served more than 10,000 people last year.

To learn more about either program call Melissa Clark, Open Space Naturalist, at 526-0855.



Ikebana Cooking Class

Ikebana International will host an "American Style" cooking demonstration April 11 by Katie Stapleton, well-known Denver culinary author, radio hostess and tour leader. Proceeds of the class will be donated to Denver Botanic Gardens. The fee for enrolling is $20, but members of Ikebana International or the Gardens may enter for just $18.

The *Green Thumb News* will present additional information on this savory event, appropriately entitled "Cook Spring," in its April edition. However, both tickets and details may be arranged now by calling any of these three telephone numbers: 443-9925, 444-3045 or 985-3267.





DBG Community Gardens open April 2. See Your January newsletter for details or call 331-4000, ext. 42.

Down the Garden Paths in March

Are you impatient for the arrival of spring? If so, you share the company of the plants in our Boettcher Memorial Conservatory. Many of them have already been rushing headlong into spring, not waiting for the late winter days outdoors to end.

The passing of the seasons touches the greenery in the Conservatory's tropical environment, just as it stimulates the inner calendars of our outdoor temperate plants. Many of our Conservatory specimens flower, fruit, experience active growth and some shed leaves seasonally.

Among the profusion of blossoms that give our Conservatory its ever-blooming reputation, the shaving-brush tree, *Pseudobombax ellipticum;* bullhorn acacia, *Acacia cornigera;* mountain thistle, *Acanthus montanus;* rose apple, *Eugenia jambos;* verawood, *Bulnesia arborea;* walking iris, *Neomarica gracilis;* and the yesterday-today-and-tomorrow, *Brunfelsia pauciflora* var. Floribunda, are but a few of the plants putting forth special efforts now, in March, to announce it's already spring, truly spring in the Conservatory.

When outdoors look for some of these tough, first-blooming hardy shrubs: witch hazel, *Hamamelis virginiana,* in the yard at the Botanic House; *Viburnum* x *bodnantense* in the Low Maintenance Garden; Cornelian cherry, *Cornus mas* cv. 'Golden Glory', east of the main north/south walkway; and black pussy willow, *Salix gracilistyla* var. *melanostachys,* and February daphne, *Daphne mezereum,* both in the Rock Alpine Garden. These will all be tempting the unpredictable nature of the early spring days of Colorado.

And, who knows? Your outdoor walk may reward you with glimpses of future spring days, as still other plants, which usually bloom when the season's weather has settled a bit more, offer a few tentative blossoms from protected locations, where they've received an extra measure of warmth from the weak winter sun, and where they, too, have become impatient for the coming of spring.

Larry Latta
Botanist-Horticulturist
Denver Botanic Gardens



1988 "Flowering of Denver" Plant and Used Book Sale Volunteer Sign up

Name _____

Address _____

City _____ State _____ Zip _____

Daytime Phone _____

_____ I will be attending the "How to, When to, What to and Not to" forum April 23.

_____ I am unable to attend the forum, but contact me regarding how else I can be a Plant and Used Book Sale volunteer.

Mail to: Denver Botanic Gardens
Development Office
909 York Street
Denver, CO 80206

From Your 1988 Plant and Used Book Sale Chairman

"The Flowering of Denver," DBG's 1988 Plant and Used Book Sale, is coming soon and I encourage you to participate!

There are many ways for members to support the success of this annual fundraiser.

Donate Used Books

This aspect of the sale provides an increasingly important source of revenue to the Gardens. Librarian Solange Gignac is accepting donations of books and cancelled foreign stamps that she can recycle at the sale. Call her at 331-4000, extension 32, or bring them by the Library on your next visit to the Gardens.

Donate Plants

In planning your spring garden clean-up, schedule it in late April and while dividing your perennials and thinning the new starts, DON'T throw them away. Instead, pot them and bring them to the Gardens for 100% profit! We can sell anything—violets, hens and chicks, sage—you name it. Specific instructions for potting and delivery will appear in the May *Green Thumb News*. Contact Nan Burnett, 758-3080, for further information.

Donate Time

Whether you are helping with setting up or inventorying plant materials, selling refreshments or cashiering at the "Flowering of Denver," it is a wonderful time to be involved at the Gardens. If this sounds like something that interests you, the ideal way to get on board would be by planning to attend the "How to, When to, What to and Not do" volunteer recruiting and training forum scheduled on Saturday, April 23, 9 a.m. to noon, at 909 York Street.

By completing and returning the adjacent coupon we will be able to schedule you for the training. (Don't forget volunteering makes you a Preferred Shopper, Thursday, May 5, from 3 to 5 p.m.) For further information contact Mary Ellen Turk, 361-9374, and leave your questions on her answering machine.

Jeanne Ruggles
1988 Plant and Used Book
Sale Chairman



At the 1987 Annual Plant and Used Book Sale

CLASSES



An Alpine Miscellany

(four sessions)
Thursdays, March 3, 10, 17, 24
7 to 9 p.m. **Classroom B**

Local gardeners are discovering that there are many exciting new plants available that can provide a long season of bloom and interesting textures throughout the year. Attend the series or choose those that suit your individual needs and learn to add these gems to your garden.

Tuesday, March 3
Garden Architecture: Dwarf Conifers and Shrubs

Dwarf conifers have been a popular feature in European gardens and on both coasts of the U.S. for many years. Recently, a much broader range of conifers is now sold locally.

Review those that are most widely available throughout the Rocky Mountain region, which perform best and how to grow them. Ways to incorporate dwarf shrubs and conifers into the home landscape will also be covered.

Thursday, March 10
A Woodland Corner: Wildflowers for the Home Garden

Many city gardens have shady areas along the north side of the house or under dense trees or shrubs that are often an eyesore and a maintenance problem. With some soil preparation, mulching and planning, it's possible to transform these areas into an attractive, easy to care for garden filled with unusual ferns and lovely flowers such as rhododendrons, wild ginger and a variety of primroses.

This class will include a slide presentation demonstrating how such a garden can be prepared and students will receive plans including a list of 30 basic woodland plants that are widely available and recommended for growing in the Denver area.

Thursday, March 17
Rocky Mountain Alpines: Western Wildflowers for the Home Owner

Traditional rock gardens consist of alpines from the Alps or other relatively humid, maritime mountain ranges. Many of these perform poorly in Colorado without considerable irrigation. Numerous native rock plants are far better suited to our conditions, however.



Learn about the best penstemons, eriogonums, phloxes and the choicest native daisies now available in the trade. Students will be able to select several seed packets of native wildflowers to grow at home.

Thursday, March 24
Alpine Miniatures: Tiny Plants for Troughs and Containers

In recent years, nurseries in the Denver area have begun to grow and import more and more unusual alpines and wildflowers. Many of these, such as gentians, androsaces and saxifrages, are too small to grow successfully in the open garden. Why not try growing some of these in a container? In this class, several different kinds of troughs (containers for growing alpines) will be demonstrated, and a variety of miniature rock plants will be displayed for you to compare—and you can even take one home.

Instructor: Panayoti Kelaidis

Fee: $30 members/$33 non-members for the series of four programs or $9 members/$10 non-members for each individual class. If you are attending individual programs, be sure to include their dates on the registration form.

Winter
1988
Denver Botanic Gardens

Further Techniques in Botanical Illustration

(six sessions)
Saturdays, March 19, 26, April 2, 9, 16, 23
1:30 to 3:30 p.m.
DBG's Morrison Center

Spend Saturday afternoons capturing the Gardens' bountiful floral beauty in your drawings. This course is designed for amateur or working artists with advanced drawing skills. Previous botanical illustration classes are necessary, but may be waived with the permission of the instructor.

Focusing on accuracy, style and composition, students will work with colored pencils or watercolors.

Please bring two drawing pencils (2B and 3H), an eraser and either a colored pencil set (Berol Prismacolor is recommended) or watercolor materials. A drawing pad will be provided.

Instructor: Rob Proctor is a Boettcher scholar who studied at the University of Colorado. He has held one-man shows in three countries and his botanical drawings and watercolors hang in many collections throughout the world.

Fee: $54 members/$59 non-members (includes $6 for materials)

Limit: 15

Birds and Plant Associations of the Southwest

(three sessions)
Mondays, March 7, 14, 21
6:30 to 8:30 p.m.
DBG's Morrison Center

View slides of spectacular natural areas of the Southwest such as Big Bend National Park, Organ Pipe National Monument, Capitol Reef National Park and Colorado National Monument along with other sites to learn the specific birds and plants of this region.

Do you look for chestnut-collared longspurs in blue grama grass or in crested wheatgrass in Colorado? Can you identify these grasses along with sagebrush, mesquite and palo verde? Learn Colorado bird and plant associations and vegetative patterns and habitats associated with particular bird species of the Southwest.

Learn more than just the names of your favorite birds and plants!

Instructor: Tina Jones is a wildlife instructor who teaches at the University of Colorado, the Denver Museum of Natural History and DBG. She is an active birder with many years of field experience.

Fee: $24 members/$26.50 non-members.

Plant Identification for Beginners

(six sessions)
Saturdays, April 9, 16, 23, 30, (skip May 7), May 14, 21
10 a.m. to noon
Classroom B

This is a "How to" rather than a "What is" course for beginners in plant identification who want to learn how to use technical, precise identification books—wherever they are, geographically. Those who take this course should have a basic understanding of plant structure and "Botany for Beginners" is the perfect prerequisite.

Suggested text: William A. Weber's *Rocky Mountain Flora* (available in the DBG Gift Shop).

Instructor: Moras L. Shubert, Ph.D., is Professor Emeritus of Botany at the Unversity of Denver and has over 30 years of teaching experience.

Fee: $48 members/$53 non-members

Botany for Beginners

(three sessions)
Tuesdays, April 12, 19, 26
7 to 9 p.m.
Classroom B

This is a course for those who have no background in botany but wish to know more about plant parts and what they do. This is fundamental if you wish to know how to identify plants. It will also help you appreciate what plants require.

Instructor: Moras L. Shubert, Ph.D.

Fee: $24 members/$26.50 non-members

Limit: 15



Facing page: Pasqueflowers in the Rock Alpine Garden

Wheat Weaving Workshop: Spiral Woven Wreath

(one session) 10 a.m. to noon
Section I: Wed., March 2
Section II: Sat., March 5
DBG's Morrison Center
Please indicate your section on the registration form.

Expand your knowledge of working with wheat. Learn to make a wreath or "bow and arrow" using the spiral weaving technique.

Attendance at a previous wheat weaving course is necessary. Please bring scissors, heavy thread and a ruler to class.

Instructor: Maureen McGowan

Fee: $11 members/$13 non-members

Limit: 12

Wheat Weaving Workshop: House Blessing

(one session) 10 a.m. to noon
Section I: Wednesday, April 20
Section II: Saturday, April 23
DBG's Morrison Center

Learn to make a traditional house blessing ornament to hang on your door to greet your guests.

Attendance at a previous wheat weaving course is necessary. Please bring scissors, heavy thread and a ruler to class.

Instructor: Maureen McGowan

Fee: $11 members/$13 non-members (includes $3 for materials)

Limit: 12



Denver Botanic Gardens
909 York Street
Denver, Colorado 80206
Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 331-4000.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes_____

Name_____

Address_____

City_____ State_____ Zip_____

Daytime Phone_____ Evening Phone_____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

Gardening Tips for March

After this exceptionally snowy, cold winter, the term "hardiness" may be used loosely and many plants will receive a stamp of approval because they survived. Hardiness is a general term that refers to the plant's ability to persist through the winter and this persistence is related to minimum temperatures. However, temperature is the principal, but not the only environmental factor that induces cold hardiness in plants. An additional asset is the snow cover acting as a blanket when temperatures dropped to minus ten degrees.

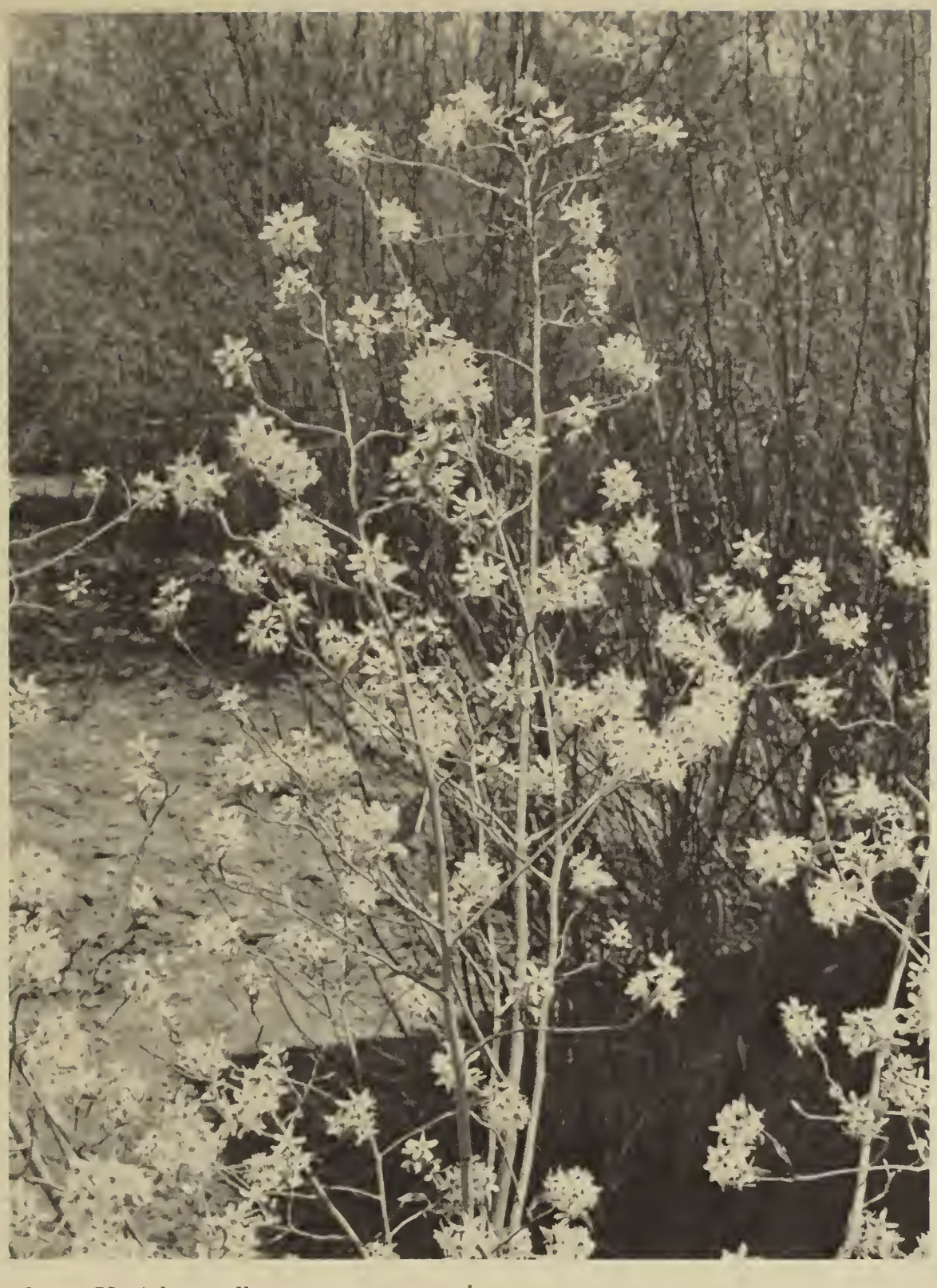
During spring and summer, plants put on their maximum growth with vegetative features more apparent May through July and caliper development more apparent in August. At this time plants do not have any frost resistance. As fall approaches, temperatures become cooler, days become shorter and there are changes in hormone activity as well as concentrations. These factors initiate the first stage of dormancy and cold hardiness. Insect defoliation or a summer drought followed by a wet fall may force a plant to overcome this initial stage of dormancy, as may fertilizing, pruning or premature transplanting.

The second and third stages of dormancy are reached when cold temperatures intensify and natural defoliation occurs. If there are too many warm days at this time, the hardiness threshold is lessened. This is also true if there is a rapid, rather than gradual, decline. During January and February cold requirements will have been met and plants can now be forced out of dormancy. Once buds open, cold resistance is lost.

Other than death of the plants some symptoms of cold injury are shrinking of tissues, cracks in the bark or crotches, sunken or discolored areas and splits between the sapwood and heartwood.

Hardiness of plants is also influenced by soil drainage, snow cover and precipitation. Until a plant has been through these conditions, hardiness is questionable. Experienced plantsmen insist that plants should be grown at least 10 years before they are considered hardy.

March is also a month to be cautious. Because the days fluctuate between winter and spring, we are tempted to act hastily. Mulches and other winter protections should remain on the



plants. Upright needle evergreens should remain tied to prevent damage from heavy spring snows.

If the ground is workable, beds can be prepared and trees, shrubs, groundcovers and some herbaceous plants can be planted. For early flower displays, pansies and snapdragons fare well.

Dormant oils can be used to control soft-bodied insects such as scale. The temperatures need to be above 40 degrees without the danger of evening frost to ensure a successful application.

Some plants that flower now are Cornelian cherry dogwood, *Cornus mas; Viburnum* x *bodnantense;* buffalo berry, *Shepherdia argentea,* along with herbaceous plants such as crocuses, scillas and irises.

As the season passes from winter to spring, it is best to stay on top of things, because soon we fall behind.

Gayle Weinstein
Botanist-Horticulturist
Denver Botanic Gardens

Reminder for DBG Members: Annual Meeting

Don't forget the Members' Annual Meeting on March 2 at the Hyatt Regency Downtown. Everitt Miller, past president of the American Horticultural Society, will present "Great Gardens of America" at 8:15 and it will be preceeded by dinner and a business meeting.

Space may remain and information can be obtained by calling the Membership department, at 331-4000, extension 22. The Hyatt Regency Downtown is located at 17th and Welton and parking will be available in the Hyatt's parking lot for $2.

CALENDAR MAR

S	M	T	W	T	F	S
		1	2 Members' Annual Meeting, Spiral Woven Wreath	3 An Alpine Miscellany*	4	5 Spiral Woven Wreath
6	7 Birds and Plant Associations of the Southwest*	8 Bonfils-Stanton Lecture Series: Holly Shimizu	9	10	11	12
13	14	15	16	17	18	19 Rose Symposium, Further Techniques in Botanical Illustration*
20	21	22	23	24	25	26
27	28	29	30	31		

*First meeting of a class with more than one session

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at Denver Botanic Gardens. Here is a listing of those groups and a ***general*** *indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 331-4000.*

African Violet Society, *4th Thurs. of 7 months;* ***Bonsai Society,*** *1st & 3rd Tues.;* ***Cactus & Succulent Society,*** *2nd Tues.;* ***Civic Garden Club,*** *1st Fri.;* ***Colorado Native Plant Society,*** *4th Wed.;* ***Gloxinia Gesneriad Growers,*** *1st Sat.;* ***Hemerocallis Society,*** *3rd Sun. of 4 months;* ***Ikebana International,*** *4th Fri.;* ***Iris Society,*** *spring & fall dates;* ***Men's Garden Club,*** *4th Thurs.;* ***Mycological Society,*** *2nd Mon.;* ***Rock Garden Society,*** *3rd Wed.;* ***Rose Society,*** *2nd Thurs.;* ***Ultra Violet Club,*** *4th Mon.;* ***Water Garden Society,*** *2nd Sun. of 5 months.*

Coming Next Month

April 9
Plant Identification for Beginners*

April 12
Botany for Beginners*

April 16-17
Cactus and Succulent Show and Sale

April 20
House Blessing

April 20
New Members' Orientation

April 23
Ikebana International Bonsai Demo Workshop

April 30-May 1
African Violet Show and Sale

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-331-4000

Non Profit Org.
U.S. Postage
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Permit No. 205
Denver, CO

March 1988

TIME VALUE

Address correction requested

Green Thumb

NEWS

Denver Botanic Gardens
April 1988
Number 88–4

The Flowering of Denver
Pre-sale page 5

Inside:

Emerson R. Birchfield page 4

"Flowering of Denver" Pre-Sale page 5

Classes page 6

Down the Garden Paths page 11

Merle M. Moore to Present "China – Mother of Gardens" April 28

An illustrated program on the development of gardens in China will be presented from 7 to 8:30 p.m. on Thursday, April 28 in Classroom C. The program will be an introduction to the role of natural history; Chinese philosophy, particularly the influence of Confucianism, Taoism and Buddhism; historical Chinese political and economic development; and Chinese art, poetry and literature in classical garden design.

The program will be given by Merle M. Moore, Executive Director of the Gardens, in preparation for the DBG tour of China scheduled for October 1-22, 1988. Mr. Moore spent three weeks touring China in 1985 at the invitation of the Botanical Society of China. He has also traveled extensively and studied gardens and horticultural practices in Taiwan, Hong Kong, Singapore and other parts of Asia.

An admission fee of $6 will be charged and members should preregister using the Education department form on page 9. Please note that this lecture fee will be waived for those who have already sent in their tour deposit. Those individuals are, however, encouraged to preregister for the program.



Plant and Used Book Sale Just Around the Corner

By now you should have planted May 6 and 7 on your calendar as the 39th annual Plant and Used Book Sale. No matter what you want for your garden or interior, you're sure to find it at DBG.

For additional information, be sure to see the related articles on pages 4, 5, and 6 of this issue.

New Members' Orientation Party April 20

Wednesday evening, April 20, new members will have an opportunity to learn more about Denver Botanic Gardens. Return the reservation form that was mailed to new members or call the Membership department, 331-4000, extension 22, for details.



Springtime at the Gardens

Wildflower Research at Chatfield Arboretum

Denver Botanic Gardens' Chatfield Arboretum received a mid-winter jump into spring, when Peter B. Teets, president of Martin Marietta Astronautic Group, announced a significant grant to the Arboretum's research program at February's "Landscaping with Wildflowers and Native Plants" conference. The grant of $100,000, over a three-year phased period, will improve our ability to research, evaluate and develop native Colorado and Rocky Mountain plant seed mixes. Once developed, the wildflower mix will be made available for highway beautification, revegetation of open space and for use by the landscape industry.

Gayle Weinstein, botanist-horticulturist for plant collections at DBG, will direct the three-year research program through all phases. Included in the project will be the collecting of seed from wild plant populations, testing of native soils where the plants are found growing, selecting suitable plant species based on their performance under cultivation and developing reliable cultural methods for large- and small-scale wildflower planting projects.

It is anticipated that additional Arboretum-managed land that lies along Highway 121 between the Arboretum and the Martin Marietta Waterton Facility, will be planted with the wildflower mix during later stages of the project.

"Cook Spring"

When two celebrated Colorado culinary artists team up to present a cooking demonstration on April 11, the members of Ikebana International, a society of dedicated students of Japanese floral design, will have created a beautiful arrangement for Denver Botanic Gardens.

Katie Stapleton, well-known Denver-area cook and food journalist, and member of Ikebana International, along with Cathy Bearden, a popular Trinidad, Colorado, hostess and food instructor will combine talents by displaying their culinary techniques in "Cook Spring," a fund-raiser by the society on behalf of the Gardens. It will feature the use of fresh spring vegetables and tender meats in the preparation of an American-style menu.

Calling either of these two culinary masters a "cook" is like calling a soufflé an egg pudding. Katie Stapleton wrote the popular book *Denver Delicious*, now in its third printing, and has hosted over 2,000 Denver radio programs. She has contributed recipes for, or advised on the publication of half a dozen cookbooks.

The cost for participating in "Cook Spring" is $18 for members of Ikebana International or Denver Botanic Gardens and $20 for non-members. It will be held Monday, April 11, from 10:00 a.m. until 2:30 p.m., in the Morrison Horticultural Demonstration Center at 2320 East 11th Avenue.

To purchase tickets or to receive more information on this culinary tribute to flowers, call 443-9925, 444-3045 or 985-3267. Please do **not** use the Registration Form for Classes and Field Trips in this newsletter.

The Colorado Green Industry Supports DBG

The new Lobby Court Display, Images of Spring, heralds the re-opening of this area and has been made possible through the generosity of Tagawa Garden Center and Florist, 7711 S. Parker Road.

This summer, watch for annual and perennial trial grounds supported by the following retailers and growers: Busch Greenhouses, Inc.; Center Greenhouse, Inc.; Chipsea; City Floral, Inc.; Country Lane Wholesale Nursery, Inc.; Echter's Greenhouses, Inc.; Englewood Garden Center and Florist; The Flower Bin; Front Range Gardens; Groundcovers Greenhouse and Nursery; Gully Greenhouse; Horiuchi Brothers, Inc.; Little Valley Nurseries, Inc.; Old Farm Nursery; The Park Floral Co.; Plants n' Things; and Welby Garden Center.

Tributes

In honor of Mrs. Thomas (Bea) Taplin
Billie & Joe Silversmith

In memory of William H. Anderson, Jr.
Robert & Shirley Conklin
Lucy Kissell
Sally Ann Peres
South High School
Margaret Wallace

In memory of Prudence Bostwick
Lucy Kissell
Moras & Erne Shubert

In memory of Mrs. Janice C. Jenkins
Faculty & Staff of Westview Elementary School

In memory of Mrs. Jack (Betty) Milstein
Judith H. Bourke

In memory of Herbert Pierce
Beverly Nilsen
John & Fran Regner

In memory of Bill Woodman
Mr. & Mrs. Robert Knickrehm

Green Thumb News
Number 88–4 April 1988

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 331-4000.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than March 18 for May, April 20 for June and May 20 for July.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 331-4000 for details.

Accredited by the American Association of Museums

Colorado Cactus and Succulent Show and Sale

Many are beautiful, all are interesting and some are downright strange. These are the amazing succulents, plants that live principally in desert habitats and survive their harsh environments through ingenious means of storing water.

The many marvelous forms, textures and colors of the succulents attract the attention of everyone who sees them. Visitors to Denver Botanic Gardens will see an extremely large selection of them at the annual Show and Sale of the Colorado Cactus and Succulent Society during the weekend of April 16 and 17. Thousands of plants will be displayed in John C. Mitchell II Hall in an exhibition that will tempt not only people developing an interest in cacti or other succulents, but serious collectors who may think they have seen everything.

Plants on display and for sale will range from merely inches to several feet tall and from common species easy to grow to truly rare specimens.

Competition and judging will again be a part of the weekend, and people who have plants to enter are encouraged by the society to do so. They may bring the plants to John C. Mitchell II Hall either Friday afternoon or very early Saturday morning. Member Jim Sykes, at 278-7524, has more information regarding this competition.

By presenting these plants for our wonder and enjoyment, the Colorado Cactus and Succulent Society has planned an unusual weekend that the whole family will enjoy. The hours of this event are from 9:00 a.m. to 4:45 p.m. and admission is covered by the regular non-member gate fee to the Gardens.



By student Shari Jones

Spring African Violet Show April 30 and May 1

"Violets Olé," the Rocky Mountain African Violet Council's spring show at Denver Botanic Gardens, promises to add some Latin spice to the weekend of April 30 and May 1. Members of the council will exhibit hundreds of different African violet varieties grown to near perfection, and visitors will be able to purchase plants of their own, some of which will be the latest introductions to the violet-growers' world.

As usual at this very popular event, experienced growers will be on hand to offer African violet growing tips, including how to propagate them. Informative handouts will also be available.

John C. Mitchell II Hall will be open to the public for this show and sale Saturday afternoon, April 30, from 1:00 to 4:30 and Sunday, May 1, from 10:00 a.m. to 4:30 p.m. There will be no charge beyond the $3.00 non-member gate admission. Telephone publicity chairperson Eris Ericksen at 234-0378 for further details.

Dr. Green Volunteer Plea

Staff members Andrew Pierce and Larry Latta remind you that positions are still available in their training program for Dr. Green assistants. If you have a bright green thumb, a little gardening experience or just a love of plants and a desire to help others in their pursuit of gardening, give either of them a call at 331-4000, soon. Volunteering your assistance with this program is guaranteed to be as rewarding to you as it is to the folks calling in who need your help.

Chatfield Volunteers

By the end of April, the first cadre of volunteer naturalist guides will have been trained to lead limited tours throughout the Arboretum's riparian habitat and the historic Hildebrand farm. Many exciting classes have been held to explain the new wetlands area, to study the abundant bird population and intriguing animal tracks and the historic significance of the area.

Many more volunteers are encouraged to join in the expanding programs at the Arboretum. Carpenters and secretaries are needed to donate their time as well as individuals who can provide assistance with plant care at the Arboretum. For more information, please contact Dr. Wayne Christian, Assistant Director, Chatfield Arboretum, 973-3705.

Ikebana Bonsai Demonstration

The Denver Chapter of Ikebana International will sponsor a demonstration/lecture on the art of bonsai Saturday morning, April 23, the proceeds from which will be used to assist Denver Botanic Gardens. This will be the second of such generous efforts by the Society on behalf of the Gardens this spring.

Mr. Harold Sasaki, a well-known teacher and Denver practitioner of bonsai technique and a member of the Rocky Mountain Bonsai Club, will speak on the history of bonsai plant culture and its migration from China, through Japan, to the United States. He will then demonstrate the adaptation and potting of a young tree as it is prepared for life in a small container.

Mr. Sasaki's highly respected expertise has come from 20 years as a bonsai hobbyist and business owner. He has dedicated himself further through formal instruction in this unique and difficult horticultural specialty.

The time for this presentation on April 23 is from 9:15 to 10:30 a.m. A $2 fee will be collected at the door to John C. Mitchell II Hall in addition to the regular Gardens' non-member gate charge. Members of Denver Botanic Gardens who attend will certainly help their Gardens by encouraging a guest to accompany them.

For more information call 688-6723.



Emerson R. Birchfield on "The Mature Garden"

There is no such thing as a garden that is finished. They are always in a state of flux, and although major elements may remain fairly constant, lively gardeners will continue to refine as their plants and tastes mature. "The Flowering of Denver," the 39th annual Plant and Used Book Sale, on May 6 and 7, affords an excellent opportunity for the refinement of a mature garden.

Our dear friend, Mrs. R., has easily managed to maintain her garden—a fresh, stimulating small urban garden.

The joy of her constant fascination with flowers is apparent, as is her judicious selection of plants. Shade is now the predominant feature of this intimate garden, but her master's touch makes us yearn for more of this precious commodity.

Gardens can go to pot as quickly as their gardeners—the encouraging part is that at least with the former it is not inevitable. Trees and shrubs mature and perhaps that cute little mugho pine we planted 12 years ago is now the size of a Buick. We may have to part with a few sun-loving friends, but we don't have to forego color. A partly shaded bed will glow with the jewel-toned primrose; the delicate sprays of *Heuchera sanguinea,* coralbells; the bright pink clusters atop leathery-leaved *Bergenia cordifolia;* the golden balls, like big double buttercups, of *Trollius europaeus,* the globeflower; and the tall magenta spikes of *Lythrum salicaria,* purple loosestrife.

Please do plant hostas. We will not extol the virtues of their handsome foliage, mainly because this point is as belabored as recommending you see your dentist regularly, but what we will laud is their flowers. Some might even be surprised to learn that they bloom. They do, indeed, and with extreme grace. The majority feature stalks of pale lavender or white pendant bells with an unobtrusive delicate scent. They are one of the nicest small pleasures in life, and you are urged to run, not walk, to John Reber's perennial division and buy every single one you have room for, if not more.

With that in mind, leave a bit of room for *Dicentra spectabilis,* bleeding-heart. The common name refers to the spring-born sprays dripping with red heart-shaped flowers, but we must let you in on one of horticulture's best-kept secrets. We refer to the reason for dicentra's other moniker, lady-in-a-bath. Holding one of the hearts upside down, pull gently on the "handles" on each side, and it will reveal a lady (a very pale one) in her tub. I am very cross this secret was not explained to me during my formative years (I might not have developed the typical boyish aversion to bathing), but your children need not be so deprived. Even without this tale, there is not a more charming plant. All they ask for is a moist, humus-rich soil, as do most shade lovers.

Do not overlook Nan Burnett's home donation division where shady plants abound. The intriguing *Tradescantia x andersoniana,* spiderwort, features three-petaled blossoms in glowing purple and lavender shades in grassy clumps. Violas, ajugas and lilies-of-the-valley are always welcome charmers in shady patches. Don't pass up a chance to secure the sweetly scented *Hesperis matronalis,* dame's-rocket; or *Lysimachia punctata,* circle flower, with floral whorls of brassy yellow; or *L. clethroides;* the fanciful old gooseneck. If you can spare divisions of any choice perennial (for sun or shade), please deliver potted plants to the Gaylord gate on Thursday, May 5, for the home donation division.

In response to the great interest in shade and woodland gardening, the rock alpine/ground cover division is emphasizing proven plants for the Denver region, as well as gems rarely offered to the public. Many species of *Hedera* (ivy), *Primula* (primrose), *Geranium* (the hardy perennials, not to be confused with the bright bedding plants), ferns, *Epimedium* (bishop's hat) and iris are recommended. Co-chair Linda Goldstein has secured the choice *Daphne* x *burkwoodii;* 'Somerset', a two-foot shrub with long-lasting blush white flowers that carry "the most wonderful fragrance in the world" according to Linda. High praise indeed! Linda's partner, Kathy Borgen, points out the unique dwarf conifers, as well as hardy azaleas and rhododendrons. She is enthusiastic about the many species of *Aquilegia,* columbine, notably *A. jonesii, A. chrysantha* and *A. elegantula.*

Now just suppose you have managed to fill every nook and cranny to overflowing (a rare feat, to which even Mrs. R., despite mounting evidence, has not admitted). We have yet to find the garden terrace that would not have room for at least one bonsai, the ancient Japanese art of growing select trees, shrubs and perennials in miniature form in small containers. Here, we have reached the dizzying plateau in horticulture wherein the cultivation of a single plant takes on the mantle of true art. Just as a painting by Ramon Kelly or Carolyn Crawford graces a wall of a home, a bonsai by Kai Kawahara, Hal Sasaki or other masters of the art imparts the same sense of beauty to a garden.

While admittedly more exacting in culture than a marigold, bonsai are considerably less exhausting than raising children, and a good deal cheaper. Some young bonsai can be had for as little as $20 (in our opinion, an out-and-out steal). K.C. Van Horne, our bonsai chairman, has devised an appropriate aura of a Japanese festival, including demonstrations by Mr. Sasaki for the do-it-yourself types. Plants, tools, containers and tips will be available.

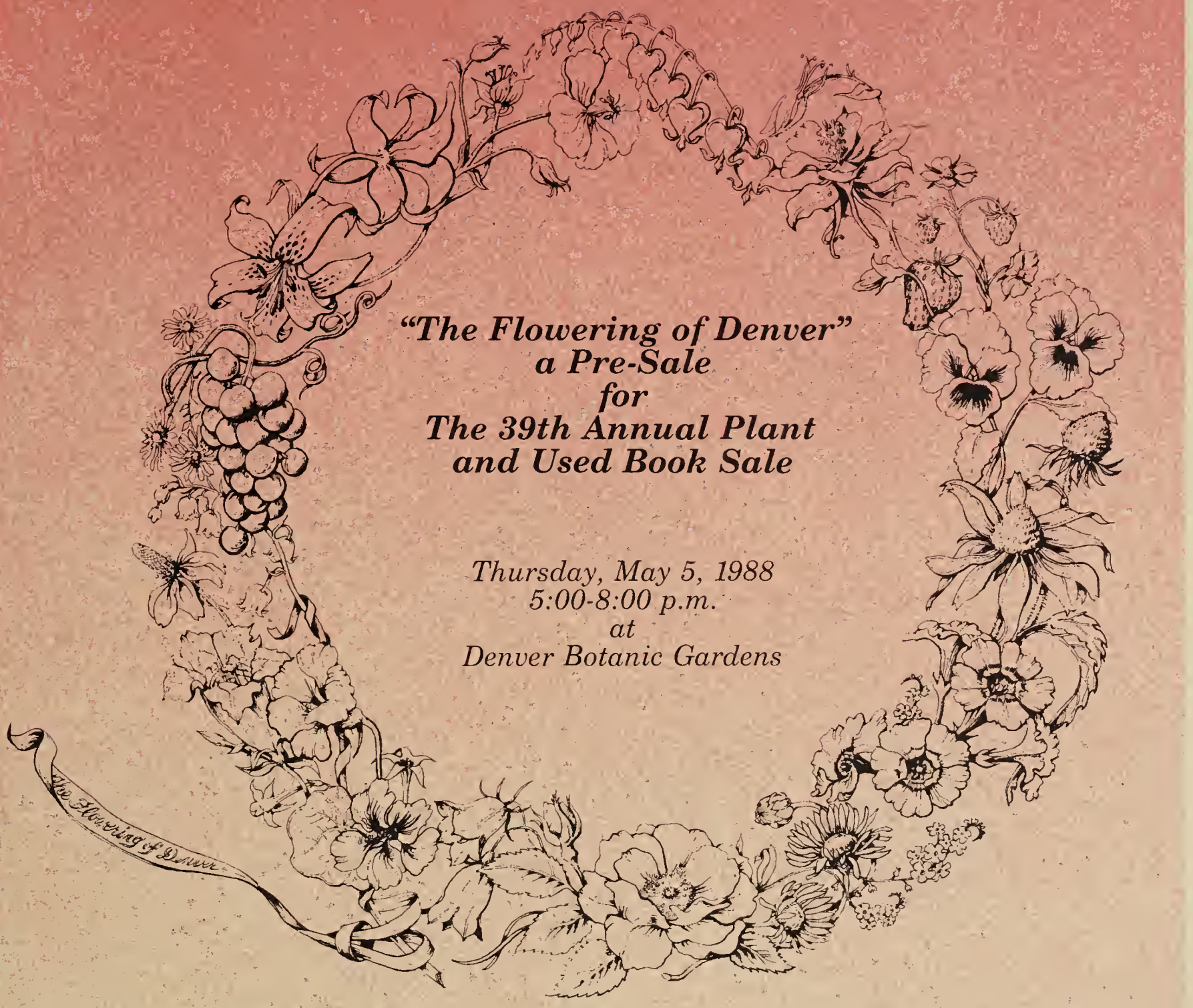
Every garden ought to have a pool. Who doesn't fantasize of a glorious pond for waterlilies, reflecting blue sky and bounteous borders of bloom? The sound of a bubbling fountain in a secluded spot is as close to heaven as we can imagine. Ask Doris and Len Freestone, who head our aquatic plants division. This year they are particularly proud to feature some outstanding hardy waterlilies and bog plants from the stock of Denver Botanic Gardens. Members of the Colorado Water Garden Society staff this division, which also features planting pots, fertilizer tablets and statuary suitable for a garden pool.

There is no reason to gaze wistfully at the waterlilies, feeling as if you had gone stag to your senior prom. A bit of ingenuity can provide a solution such as that devised by Ms. M. (you may remember her and gardening with wolfhounds from a previous installment). In her small high-walled garden of brick paths and wrought iron gates, she has built a tiny pool (let's give credit where credit is due—her husband was the brawn behind the brains) about three feet by seven, raised as high as a garden bench. The sides and ledge are covered with bright Mexican tiles. She needn't lean over to enjoy her waterlilies, which manage to flourish with about five hours of direct sun daily, and her cats have a wonderful vantage from which to take swipes at the terrified goldfish. Do not discount its allure as the perfect watering trough for a thirsty wolfhound.

There is little reason to pity the proprietor of a small urban garden. The indomitable Ms. M. and the connoisseurish Mrs. R. have triumphed with their creativity and a good healthy dose of persistence. The selections and staff at "The Flowering of Denver" may provide a similar opportunity for the owner of a shady garden.

(Emerson R. Birchfield is our special correspondent for "The Flowering of Denver," May 6 and 7. He is the owner of an award-winning garden, and we dispute his claim to be a curmudgeon, although we do agree he's "cantankerous when the neighbor's cat gets in the lilies.")

The Board of Trustees of Denver Botanic Gardens
invites you to



"The Flowering of Denver"
a Pre-Sale
for
The 39th Annual Plant and Used Book Sale

Thursday, May 5, 1988
5:00-8:00 p.m.
at
Denver Botanic Gardens

This is a grand opportunity to select from the "cream of the crop" of the plants and books at the sale, meet old friends, listen to music by the Botticelli Quartet, enjoy a scrumptious buffet by Panache, avoid the crowds and have volunteers help choose your plants and load your car.

Cocktail Buffet
Cash Bar

Casual Dress

Entertainment and Enticements
$40 Per Person
($30 tax-deductible donation)

_____ *Enclosed is my check for $_____ for _____ reservations.*

_____ *I cannot attend, but enclosed is my tax-deductible contribution of $_____.*

Name(s) _____

Address _____

City _____ *State* _____ *Zip* _____

Telephone _____

Mail to: Mrs. Barron N. Ellis
Denver Botanic Gardens
909 York Street
Denver, CO 80206

Reservations are a must!
Reservation deadline-April 30
Make checks payable to Denver Botanic Gardens.



1987 Annual Plant and Used Book Sale Volunteer Lynn Dexter

Facing page: Students in Watercolor Painting

From Your 1988 Plant and Used Book Sale Chairman

Just a reminder to all of you who have already contacted us to volunteer and those of you who haven't. The training program for volunteers of "The Flowering of Denver," the 1988 Plant and Used Book Sale, is scheduled for Saturday, April 23.

Refreshments will be served from 9 to 9:15 a.m. in the Botanic House at 909 York Street, and it should conclude around noon. Training will focus more specifically this year on the actual work at the sale with representatives of all facets of the sale available. After introductions and short, but informative presentations on the types of plants to be sold, the meeting will divide into smaller groups.

You may bring a sack lunch if you would like to remain for the afternoon. For more information call Mary Ellen Turk, 1988 Volunteer Coordinator, 861-0116 during business hours. If you are interested in helping please complete the coupon in the March *Green Thumb News* on page 7.

Jeanne Ruggles
1988 Plant and Used Book
Sale Chairman



Basic Pruning Principles

(one session)
DBG's Morrison Center
Thursday, April 14 7 to 9 p.m.

Properly pruned plants are healthier as well as more aesthetically pleasing. In this introductory class, students will learn the basic principles, plant responses and timing involved in pruning deciduous and evergreen plants.

Instructor: Gayle Weinstein is a botanist-horticulturist at DBG and oversees the development and maintenance of the plant collections. She has extensive teaching experience.

Fee: $8 members/$9 non-members

Pruning Workshop

(one session)
Saturday, April 16
9:30 to 11:30 a.m.

This is a hands-on class for those who have taken Basic Pruning Principles on April 14. In it, students will learn to prune using plants on the grounds of the Gardens. Participation and good supervision are certain to result in well-shaped specimens in your own yard.

Meet: outside the main entrance of the Education building

Instructor: Gayle Weinstein and other members of the DBG staff

Fee: $8 members/$9 non-members

Limit: 12

Tree Walk at Fairmount Cemetery, Denver

(one session)
Sunday, April 24 1:30 to 3:30 p.m.

During the summers of 1890 and 1891, over 4,000 trees including seven species of oaks, sycamores, silver maples, Kentucky coffee trees and pines were all planted at Fairmount Cemetery. This is an opportunity to observe these as well as some more unusual trees such as scarlet oak and yellow buckeye.

A walk through these mature, historic specimens will sharpen your identification skills.

Instructor: Dr. William G. Gambill, Jr., Director Emeritus and taxonomist at DBG, is a former botany and biology professor.

Meet: promptly at 1:30 p.m. just inside the entrance of Fairmount Cemetery which is located at East Alameda and Quebec Streets in Denver.

Fee: $7.50 members/$8.25 non-members (includes $3 for *Trail of Trees,* a 64-page illustrated guide to Fairmount Cemetery)

Ornamental Trees for Colorado

(four sessions) Morrison Center
Mondays, April 25, May 2, 9 from 7:15 to 9:15 p.m. and field trip on Saturday, May 14 from 9 a.m. to noon

The emphasis of this course will be on identifying and examining the landscape value of over 50 species of ornamental trees that are hardy in the Denver area. Through the use of slides, students will observe the plant material while the instructor discusses their cultural requirements.

Instructor: Jeffrey Frank studied landscape architecture at Pennsylvania State University and the University of Virginia and is presently employed as a landscape architect.

Fee: $36 members/$40 non-members

Spring Birdwatching Specialties

(two sessions)
Monday, May 2 from 9 to 11 a.m. in Classroom B followed by a field trip until 1 p.m. at Wheat Ridge Greenbelt
Monday, May 16 from 8 a.m. to noon at Chatfield Reservoir State Park

Learn to accurately identify Colorado's common and not-so-common birds that are found in the spring. View our feathered friends in their colorful breeding attire and maybe even get a glimpse of some unusual migratory species such as the rose-breasted grosbeak and warblers.

Bird skins for study and handouts will be provided.

Please bring whatever avian field guide you have to the first session. *Field Guide to the Birds of North America,* a National Geographic Society publication, is recommended. Don't forget to bring your binoculars to both sessions. Wear sneakers or walking shoes for the one-mile walk on flat terrain at each session. You'll also need water and a rain jacket; lunch is optional but consider bringing a snack.

Meet: The first session consists of two hours in the classroom followed by a field trip to Wheat Ridge Greenbelt; carpooling from the Gardens will be encouraged. The second class will meet at Chatfield Reservoir State Park and a specific meeting site will be discussed in class. Please note that each car entering the state park must pay $3.

Instructor: Tina Jones is a wildlife instructor who teaches throughout Colorado. She is a board member of The Colorado Field Ornithologists and has birded extensively throughout the United States.

Fee: $28 members/$30 non-members

Denver Botanic Gardens

presents

CHINA — MOTHER OF GARDENS

Travel Program

October 1 - 22, 1988



Merle M. Moore, Executive Director of Denver Botanic Gardens, and **Thomas M. Keesling**, President of Travel Associates, invite you to **join them** on this very special tour of China. This is a rare opportunity to visit some of China's finest classical and contemporary gardens that are not available to the average tourist.

CHINA — MOTHER of GARDENS Travel Program

October 1 - 22, 1988

HONG KONG • BEIJING • XIAN • SHANGHAI • SUZHOU • HANGZHOU • KUNMING • GUILIN

HIGHLIGHTS INCLUDE:

Privately escorted visits to a variety of gardens and botanical attractions such as "Garden of Earthly Repose" in Beijing that lies deep in the heart of the 'Forbidden City' among cypress and pine trees, gnarled wisteria vines and potted chrysanthemums OR some of the great private gardens of the South where visits may include the "Pavilion of Fragrant Snow & Azure Clouds", the "Pavilion of Expecting Frost" or the "Small Flying Rainbow Bridge"; to name a few.

- **BEIJING** - China's most imposing architectural masterpiece, IMPERIAL PALACE, also known as the "Forbidden City"; the largest Public Square in the world, TIENANMEN; the GATE OF HEAVENLY PEACE; MAO TSE TUNG MEMORIAL HALL; THE TEMPLE OF HEAVEN; THE SUMMER PALACE; THE GREAT WALL and MING TOMBS

- **XIAN** - One of the richest collections of ancient artifacts in China at SHAANXI PROVINCIAL MUSEUM; LI SHIMIN TOMB that has been restored as an underground museum; BANPO VILLAGE, the neolithic site of the Yangshao culture; and the TOMB OF QIN SHI HUANG DI with its thousands of life size terra cotta warriors and horses

- **SHANGHAI** - SHANGHAI INDUSTRIAL EXHIBITS; PEOPLE'S PARK; YU GARDEN; THE OBSERVATION HALL; SPRING FESTIVAL HALL; JADE CARVING FACTORY and one of the most famous CHILDREN'S PALACES in China

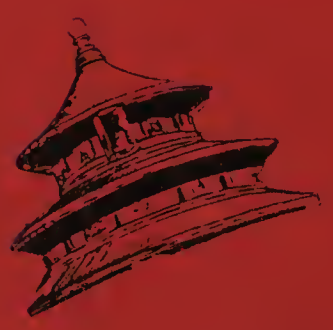
- **SUZHOU** - TIGER HILL; SUZHOU EMBROIDERY RESERCH INSTITUTE; GARDEN OF HARMONY and a variety of other gardens are featured in this graceful "renaissance" town

- **HANGZHOU** - PAGODA OF SIX HARMONIES; LING YING MONASTERY and the HANGZHOU BROCADE FACTORY

- **KUNMING** - Denver's Sister City, Kunming offers many places of historic interest and scenic beauty such as GOLDEN GATE in the Western Hills; The BLACK DRAGON POOL PARK; GREEN LAKE PARK; DAGUANLOU PARK; the copper cast palace in the GOLDEN TEMPLE; and the clay statues of the BUDDHIST SAINTS in the BAMBOO TEMPLE

- **GUILIN** - The KARST FORMATIONS, ELEPHANT TRUNK HILL and SEVEN STAR PARK where visitors wander under the old Flower Bridge past arched gates, golden cassia trees in bloom and red-and-green pavilions

- **HONG KONG** - HARBOUR CRUISE through the Typhoon Shelter and Harbour to Aberdeen; private dinner at the ABERCROMBIE & KENT apartment overlooking the Hong Kong Harbour; VICTORIA PEAK; ABERDEEN and fabulous shopping



MERLE M. MOORE to PRESENT
CHINA — MOTHER OF GARDENS Lecture Program

Thursday, April 28, 1988
7:00pm - 8:30pm
John C. Mitchell II Hall



In addition to the travel program, Merle M. Moore will present a special lecture on the development of gardens in China. The lecture will include Chinese philosophy, art, poetry and literature in classical garden design along with an introduction to the role of natural history. Cost for this lecture is $6.00. Fee will be waived for anyone under deposit on the China Tour. Pre-registration is required by calling Denver Botanic Gardens Education Department at (303) 331-4000.

FOR MORE INFORMATION ON THE CHINA - MOTHER OF GARDENS Travel Program or Lecture Program, please contact:

Travel associates, inc.

7007 E. Hampden Ave.
Denver, Colorado 80224

(303) 759-8666

(800) 548-5488

CLASSES

Spring
1988
Denver Botanic Gardens



Botany for Beginners

(three sessions)
Tuesdays, April 12, 19, 26
7 to 9 p.m.
Classroom B

This is a course for those who have no background in botany but wish to know more about plant parts and what they do. This is fundamental if you wish to know how to identify plants. It will also help you appreciate what plants require.

Instructor: Moras L. Shubert, Ph.D.

Fee: $24 members/$26.50 non-members

Plant Identification for Beginners

(six sessions)
Saturdays, April 9, 16, 23, 30, (skip May 7), May 14, 21
10 a.m. to noon
Classroom B

This is a "How to" rather than a "What is" course for beginners in plant identification who want to learn how to use technical, precise identification books—wherever they are, geographically. Those who take this course should have a basic understanding of plant structure and "Botany for Beginners" is the perfect prerequisite.

Instructor: Moras L. Shubert, Ph.D., is Professor Emeritus of Botany at the Unversity of Denver and has over 30 years of teaching experience.

Fee: $48 members/$53 non-members

Perennial Pleasures

(five sessions) **10 a.m. to noon**
Tuesdays, April 26, May 3, (skip May 10), 17, 24, 31
DBG's Morrison Center

With proper planning and planting, perennials can enhance any garden with long-term beauty and reduced maintenance. Discover the pleasures of perennial gardening in this five-session course that covers garden design, soil preparation and cultivation as well as a multitude of suggested plants.

Perennials for specialized situations such as shady areas will also be discussed. There will be ample opportunity for questions.

Instructor: Andrew Pierce is a horticulturist and is Assistant Director of DBG. He is an accomplished grower of perennials and alpine plants.

Fee: $40 members/$44 non-members

Beginning Bonsai

(three sessions)
Wednesdays, May 4, 11, 18
7 to 9:30 p.m. **Classroom B**

This introductory course will cover the historical and cultural techniques of bonsai, the art of creating dwarf trees and shrubs. Instruction on styling, training, potting and general care of bonsai will be included.

Each student will take a completed bonsai home and all materials will be provided.

Instructors: Keith Jeppson, past president of the Rocky Mountain Bonsai Society, is an experienced bonsai hobbyist of 16 years. Harold Sasaki is a commercial bonsai grower with 18 years of experience. Both are capable instructors.

Fee: $52 members/$57 non-members (includes a $22 materials fee)

Limit: 15

Know and Grow Orchids

(three sessions)
Wednesdays, May 25, June 1, 8
9:30 to 11:30 a.m. **Classroom C**

Discover the fantastic orchid family and their basic cultural requirements in this three-session course. Following an introduction to the natural and human history of the orchids, participants will learn how to develop a good collection for their homes and greenhouses.

Fundamentals of soil media, watering and fertilizer will be covered through lectures and demonstrations. Each student will have the opportunity to take a division home following a hands-on dividing and repotting session.

Instructor: Botanist Horticulturist Larry Latta has been an orchid hobbyist for over 15 years. He has observed and collected orchids in the wilds of Ecuador, Venezuela and eastern Mexico.

Fee: $24 members/$26.50 non-members

Plant Life Field Trip: Red Rocks Park

Wednesday April 20
9 a.m. to 2 p.m.

This is an opportunity to observe some of the delightful early spring wildflowers of Red Rocks Park. Sagebrush buttercups, Easter daisies, spring-beauties, Oregon grapes and some of the mustards should all be in flower. Bring a lunch.

Leader: Peter Root is an amateur botanist who volunteers regularly at the Kathryn Kalmbach Herbarium at DBG. He is also a volunteer naturalist at Roxborough State Park.

Meet: at 9 a.m. at the main parking lot of Denver Botanic Gardens to carpool and share gasoline expenses.

Fee: $2 per person

Wildflowers of the Plains Field Trip

(one session) **10 a.m. to 3 p.m.**
Section I: Wednesday, May 11
Section II: Saturday, May 21
Please indicate your section on the registration form.

This spring field trip at the edge of the plains at Plainview is an opportunity to see the spring flora of this area in its full glory. See the Rocky Mountain iris, orange arnica, western wallflower, bluemist penstemon, Easter daisy, spring-beauty, pasqueflower and many others.

Don't forget to bring your lunch and drinking water; if you have wildflower field guides and a hand lens, they would also be useful.

Meet: promptly at 10 a.m. at the junction of Highways 93 and 72 between Boulder and Golden in the parking lot at the southeast side of the intersection. Please call the Education department if you have questions.

Instructor: Paul D. Kilburn, Ph.D., has taught botany and ecology in Illinois and Colorado for many years.

Fee: $5 members/$5.50 non-members



Ecology and Flora of North Table Mountain

(one session)
Saturday, May 28
10 a.m. to 3 p.m.

This is a field foray to examine the native biology as well as man's use of this lava-capped mountain, rising 1,000 feet above the plains, and located northeast of Golden just 15 miles from Denver.

Explore this natural history gem with its wide variety of grassland and shrub communities and geology and wildlife. See stands of mountain mahogany, snowberry, skunkbush, chokecherry, mountain maple, lichens and the abundant spring flowers of the foothills.

Meet: promptly at 10 a.m. 1.8 miles north of Highway 58 (Golden) on Highway 93 at the gravel road on the east side of Highway 93 (by small cottage).

Instructor: Paul D. Kilburn, Ph.D.

Fee: $5 members/$5.50 non-members

Mushroom Identification

(two sessions) **Classroom C**
Saturdays, June 4, 11
8:30 a.m. to 12:30 p.m. and optional field trip from 1:30 to 3:30 p.m.

This course will present mushroom identification for beginners and will provide a base for those who may wish to pursue the subject in more depth in the future.

Spring-fruiting mushrooms of the city as well as the summer fruiting species of the high country will be covered.

Two slide-lecture sessions cover structure, growth, habitat, seasonality, toxicity and edibility of mushrooms. The use of field guides and keys will be demonstrated and recommendations will be given on those most useful in our area. Recommended field guides will be available for purchase.

Handouts will be distributed but students should be prepared to take additional notes. Participants will learn to positively identify more than 20 common edible, non-edible and poisonous mushrooms in addition to helpful collecting, cleaning, preparation and cooking hints.

An optional field trip to areas near the Gardens will be scheduled in the afternoon of each session.

Those planning to attend the field trips should bring a sack lunch. Prospective students should be on the lookout for early mushrooms and may bring them to class for identification.

Instructor: Marilyn Shaw lectures and teaches extensively and has been active in the Colorado Mycological Society for 15 years. Ms. Shaw is a consultant in mushroom identification for DBG and the Rocky Mountain Poison Center.

Fee: $50 members/$55 non-members

Water Gardening for Colorado

(two sessions)
Tuesdays, May 17, 24
7 to 9 p.m. **Classroom C**

With such diverse plants as the smallest flowering plant in the world (*Wolffia* sp.) and the giant water platter (*Victoria* sp.), the world of aquatic plants offers excitement to both professional gardeners and amateurs. The content of this "how-to" course includes: water gardening history; pool design and construction; variety selection, cultivation and display; hardy and tropical bog plants; half-barrel displays; the culture of the Victoria water lily and lotus as well as floating plants; sources of plant material; and special problems.

Through slide presentations, demonstrations and discussions, learn to incorporate these unusual plants into your home landscape.

Instructor: A Gardener Florist II at Denver Botanic Gardens, Joseph V. Tomocik maintains our Aquatic Plant Display and enjoys sharing his enthusiasm for these "wet wonders" of the plant kingdom with others.

Fee: $16 members/$17.50 non-members

Learn to Draw Colorado Wildflowers

(six sessions) **Classroom B**
Tuesdays, June 7, 14, (skip June 21), June 28, July 5, 12, 19

Section I: 9:30 to 11:30 a.m.
Section II: 7 to 9 p.m.

Please indicate your section on the registration form.

No experience necessary! In this class, students will learn to make beautiful, accurate botanical drawings of some of Colorado's prettiest wildflowers.

Participants will start to work in pencil and will eventually progress to watercolors. Please bring drawing pencils and an eraser to the first class.

Instructor: Angela Overy received her National Diploma of Design from London University, England, and designed in London, New York and San Francisco before settling in Denver. Over the years, many DBG students have found a new interest and ability in her enthusiastic classes and lectures.

Fee: $53 members/$58 non-members (includes $5 for materials)

Limit: 15

Japanese Tea Ceremony

Section I: Sunday, April 17
Section II: Saturday, April 30
Section III: Sunday, May 8
Section IV: Saturday, May 21

(one session) 2 to 3 p.m.
Tea House in DBG's Japanese Garden

Please indicate your section on the registration form.

Because of its emphasis on such concepts as harmony, respect, purity, tranquility and elegant simplicity, the tea ceremony has for centuries been considered the epitome of Japanese life. This is an opportunity to experience an authentic tea ceremony in the quiet splendor of our Japanese Garden.

Instructor: Kathryn Kawakami has done much to inform Denver area residents and students about the culture of Japan. She will be assisted by William Crowder who studied the tea ceremony in Japan at Ura Senke.

Fee: $4.50 members/$5 non-members

Limit: 15

Chair Caning

(five sessions) 7 to 9 p.m.
Thursdays, May 19, 26, June 2, 9, 16
DBG's Morrison Center

Learn an age-old craft. Replace that sagging or broken seat in your hard cane, pressed cane, rush or reed chair. With homework, you'll be able to complete at least one project during this course.

No previous experience is necessary. Materials will cost approximately $10-$20 and can be purchased at the first session. The instructor will contact each student prior to class to discuss each project.

Instructor: Jill Goldberg is a self-proclaimed "cane addict" who learned the art from her mother. She has taught numerous courses and operates her own business, "The Able Caner."

Fee: $40 members/$44 non-members. Materials are purchased separately and depend upon individual projects.

Wheat Weaving Workshop: House Blessing

(one session) 10 a.m. to noon
Section I: Wednesday, April 20
Section II: Saturday, April 23
DBG's Morrison Center

Learn to make a traditional house blessing ornament to hang on your door to greet your guests.

Attendance at a previous wheat weaving course is necessary. Please bring scissors, heavy thread and a ruler to class.

Instructor: Maureen McGowan

Fee: $11 members/$13 non-members (includes $3 for materials)

Limit: 12

Beginning Copperplate

(six sessions)
Tuesdays, May 3, 10, 17, 24, 31, June 7
1 to 3 p.m. Classroom B

Copperplate originated in the 17th century and had many uses from labeling botanical illustrations to accounting. Its popularity grew due to the ability to write at a fast pace and still remain neat and legible. The script is achieved using a flexible point, unlike most calligraphy which uses a broad edge.

This introductory course will teach students basic letter forms of the script, the use of proper materials, color and simple design.

Instructor: Alicia McKim studied art at Western State College and is a freelance calligrapher whose work is exhibited widely.

Fee: $48 member/$53 non-members. Necessary supplies will be available at the first class for approximately $10.

More Lessons in Ikebana

(four sessions) 10 a.m. to noon
Saturdays, June 4, 11, 18, 25
DBG's Morrison Center

This course is for students who have had some previous instruction in ikebana and will include an introduction to nageire.

Please bring the following materials to class: a round or rectangular ceramic flower container (no smaller than 12 inches long and two inches deep), two needlepoint flower holders (one that is two inches wide and one that is three inches wide or larger), sharp clippers, small bucket (or other container to hold flowers and water), a tall (ten inches or more) container for nageire and a notebook.

Although flowers will be provided, students should bring their own line material (branches) cut from their yards.

Instructor: Joan Wooldridge

Fee: $44 members/$47 non-members (includes $12 for flowers)

Limit: 12

Watercolor Painting

(five sessions)
Thursdays, April 7, 14, 21, 28, May 5
9:30 a.m. to noon
DBG's Morrison Center

Explore the sparkle and delicacy of watercolor painting while enjoying the natural setting of Denver Botanic Gardens. This course will cover the basic materials and techniques of watercolors with emphasis on the freedom of personal expression.

Come prepared with supplies. You'll need: a 1½-inch flat brush, a #10 round brush, watercolor paper, tissues, container for water, plastic palette and cake or tube watercolors.

Instructor: Lynette Swanson-O'Kane is a graduate of the Philadelphia College of Art and a professional artist with national representation of her work.

Fee: $50 members/$55 non-members

Spring Beauty, Claytonia rosea, by Emma A. Ervin



Denver Botanic Gardens
909 York Street
Denver, Colorado 80206

Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 331-4000.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes_____

Name_____

Address_____

City_____ State_____ Zip_____

Daytime Phone_____ Evening Phone_____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

L I B R A R Y

L I N E S

Helen Fowler Library
Volume 11, No. 2
April 1988

Librarian:
Solange
Gignac

THE REVIEWERS:

Joann Narverud—Grounds Foreman, DBG

Lynn Thompson—Former Community Gardens Coordinator, DBG

A Garden of Roses

By Graham Stuart Thomas. Salem House, Topsfield, Massachusetts, 1987. $29.95. SB 411.45 T6 1987.

In the early 1900s Ellen Ann Willmott commissioned Alfred Parsons to illustrate *The Genus Rosa*. Due to unfortunate circumstances his wonderfully detailed watercolors went practically unnoticed at the time of publication. This book presents his work in a new light. A *Garden of Roses* provides us with a fascinating glimpse of horticulture at the turn of the century.

It opens with a brief history of garden roses and the life of the renowned Miss Willmott. The second essay concentrates on Mr. Parsons and the complications leading to the publication of *The Genus Rosa* and allows us a somewhat different view of one of the inspired gardeners of the time. The remainder of the text takes the form of notes contributed by Graham Stuart Thomas.

Having read other books by this distinguished horticulturist, I was able to follow his line of thought, but I feel many of his notes would be confusing, eventually frustrating, to the uninitiated.

In spite of this, the watercolors by Mr. Parsons are of such wonderful quality and life that this book would make a beautiful addition to the rose enthusiast's library.

Roses in Gardens

By Alan Toogood. Salem House Publishers, Topsfield, Massachusetts, 1987. $14.95. SB 411 T6 1987.

Devoted to exploring exciting ways to include roses in all aspects of garden design, *Roses in Gardens* is a pleasure to read. Alan Toogood offers innovative suggestions for everything from container gardening to mixed borders and to cottage gardens. The text is well organized and the accompanying photographs are surprisingly true to color.



As an advocate of roses as landscape subjects, I have combined them with many unusual plants. Although I cannot embrace all of the companion plants and combinations recommended, I agree with the author that roses planted in the garden, as opposed to rose beds, are displayed to their best advantage. I thoroughly enjoyed this, the latest in the "Gardening by Design" series and recommend it to anyone interested in creating beautiful landscapes.

Joann Narverud

The Beautiful Food Garden

By Kate Rogers Gessert. Van Nostrand Reinhold Company, New York, 1983. $24.95. SB 321 G477 1983.

A book that begins to offer unique and creative ideas for incorporating ornamental plant materials into the food garden and perceiving traditional food crops as ornamentals soon becomes side-tracked and develops into just another resource for cultural tips or vegetable gardening.

A major portion of the book is devoted to edible plants and their culture. Brief discussions on ornamental characteristics and drawbacks, adaptability, insects, diseases, food and landscape uses and varieties are included for each crop. Unfortunately, the text is a compilation of generalities offering no real detail or specifics to the reader. Tidbits of information are offered similar to that of a gardener's diary, reflecting information that is specific to one garden rather than a wide range of areas and climates.

The portion of the book offering the reader a unique perspective on the use of food crops in landscaping would have been an outstanding attribute, yet the author provides few thoughts and quickly moves on to another subject. Garden designs, photos, charts on spacing requirements and growth habits and suggestions for successful intercropping of food and ornamental crops would have been welcome additions to the text. As it stands, the book offers very little unique or useful information, and is representative of a draft rather than a completed work.

Lynn Thompson



Gardening Tips for April

This is the month chosen by the National Garden Bureau to honor the 39 million American households that garden each year. April 10 to 16 is National Garden Week. "American gardeners beautify and enhance the environment with their activities. Gardeners deserve recognition, especially during National Garden Week," the Bureau proclaims. As a member of Denver Botanic Gardens you are undoubtedly busy enough this month in your own garden, however, several activities planned around the country will be of interest to you.

The well-known magazine *Organic Gardening* has set up a toll-free hotline April 11 to 15 offering all gardeners of the United States the opportunity to get professional answers to their horticultural questions. Eddie Albert, the enthusiastic gardening actor who recently narrated two television public service announcements for Denver Botanic Gardens, will be among the experts on the other end of the line. The number is 1-800-542-GROW. It will be open from 8:00 a.m. to 8:00 p.m. EST.

The Second Annual Garden Week Poster Contest, open to children aged 5 to 9 years, will be cosponsored by the National Junior Horticultural Association and the National Garden Bureau. The entry deadline is May 15, 1988. The theme this year is "Together We Work, Together We Grow." For vital information on this contest, interested young gardeners should send a stamped, self-addressed envelope to: National Garden Week Poster Contest, c/o Gwendolyn Hartley, Route 1, Moyer Road, Dover, KY 41034. Best wishes, from the Gardens!

The National Garden Bureau says, "We will celebrate National Garden Week the second full week of April each year, ad infinitum." We can think of no better celebration for the month of April, nor any more perfect way to salute all dedicated gardeners.

Meanwhile, back in the garden, we have other things we should be doing this month. Not being able to depend on a "normal" spring, gardeners must be prepared for extremes. We accept the challenge of beginning early, in hopes of sneaking in a longer-than-possible growing season, keeping alert for weather setbacks. It's a tricky business, gardening in Colorado. Good garden tools are determination, watchfulness and patience. Let's discuss some ways to apply them this April.

In the vegetable patch several items should go into the ground immediately. Seeds of peas, fava beans, spinach, carrots, beets, turnips, radishes and lettuce could even have been planted in the latter half of March. These are early harvest foods. Some of them are intolerant of hot summer weather and must reach their maturity before the end of June. Sets of onions and garlic, however, benefit from early planting because they relish the heat and long days of summer during their maturation; planted too late they will yield small bulbs. Plantlets of the cole vegetables, such as cabbage, broccoli, cualiflower and brussels sprouts, should be included in April's planting schedule, but, mindful of possible returns of wintery weather, early gardeners should keep on hand a supply of protective covers. Gallon sizes, or larger, of emptied and rinsed milk or bleach containers may be cut into inexpensive shelters for this purpose.

Shrub and flower gardeners finish up their leftover winter pruning this month. However, it is premature to cut any wood from early flowering shrubs such as lilac, forsythia or Japanese quince. This task should be saved for late spring, just after they've bloomed. It's time to remove the protective hills mounded around large-flowered hybrid roses. Other mulching coverings elsewhere in the garden should also be removed late this month. However, young sprouting growths wait under that mulch. Take care to prevent damaging them as you rake their winter cover away.

Pest control begun early will lessen the ferocity of the battle later on. Protect the crowns of emerging delphiniums, chrysanthemums and other perennials from slugs with cunningly placed containers, such as tuna or cat food cans, sunk to their tops into the ground and filled with beer, whole milk or a mixture of yeast and water. Gardeners who empty these traps regularly and replenish their liquid will be doing themselves a favor—it can be an unpleasant task if left too long.

April is a busy month. However, don't forget to take a little time out to pat yourself on the back. While you're enjoying your pastime, you're beautifying and enhancing our environment as well. Reflect upon your association with millions of other gardeners the nation over, and celebrate National Garden Week all month.

Larry Latta
Botanist-Horticulturist
Denver Botanic Gardens



Down the Garden Paths in April

The rock wrens are back! And soon we'll see the return of the first mourning doves of the season. Both these species are abundant inhabitants of the Gardens during the summer. The wrens bobbing and calling throughout the Rock Alpine Garden and the doves whistling in their evening flights over the heads of concertgoers in the amphitheater are common occurrences. Nevertheless, their presence after a winter's absence is reassurance of warm, balmy spring days ahead.

As the beauty of our separate gardens has increased through the years for all our human visitors, so has their attractiveness for birds. For them, too, the Gardens has become an excellent habitat. Seeds, fruits and, yes, insects provide the birds with food, and the shrubs provide safe hiding places for the shy.

Of course, the main seasonal migration from the lower Plains and the South isn't yet in full flight, but many interesting species are expected soon as they pass through the city on their way into the foothills by way of the several creeks that join the Platte near Denver. An early April morning walk through the Gardens with a pair of binoculars is a rewarding warmup activity in preparation for serious birding in May.

Naturally, you'll want to notice all the spring flowers bursting forth as well. Take special notice of the Wingsong Garden along the southwestern side of the Gardens. If you're a bird lover, it offers landscape ideas especially for your home. It was designed particularly for the birds.

CALENDAR APR



S	M	T	W	T	F	S
**First meeting of a class with more than one session*					1	2
3	4			7 Watercolor Painting*	8	9 Plant ID for Beginners*
10	11 "Cook Spring"	12 Botany for Beginners*	13	14 Basic Pruning Principles	15	16 Pruning Workshop, Cactus & Succulent Show & Sale
17 Cactus and Succulent Show and Sale, Japanese Tea Ceremony	18	19	20 Plant Life Field Trip, Wheat Weaving Workshop, New Members' Orientation	21	22	23 Ikebana Bonsai Demonstration Workshop, Wheat Weaving Workshop
24 Tree Walk at Fairmount Cemetery	25 Ornamental Trees for Colorado*	26 Perennial Pleasures*	27	28	29	30 Japanese Tea Ceremony, African Violet Show & Sale

Coming Next Month

May 1
African Violet Show & Sale

May 2
Spring Birdwatching Specialties*

May 3
Calligraphy — Beginning Copperplate*

May 4
Beginning Bonsai*

May 5
"Flowering of Denver" Pre-sale

May 6-7
"Flowering of Denver" Plant & Used Book Sale

May 8
Japanese Tea Ceremony

May 11
Wildflowers of the Plains Field Trip

May 17
Water Gardening for Colorado*

May 21
Wildflowers of the Plains Field Trip, Japanese Tea Ceremony

May 25
Know and Grow Orchids*

May 28
Ecology and Flora of North Table Mountain

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at Denver Botanic Gardens. Here is a listing of those groups and a ***general*** *indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 331-4000.*

African Violet Society, *4th Thurs. of 7 months;* ***Bonsai Society,*** *1st & 3rd Tues.;* ***Cactus & Succulent Society,*** *2nd Tues.;* ***Civic Garden Club,*** *1st Fri.;* ***Colorado Native Plant Society,*** *4th Wed.;* ***Gloxinia Gesneriad Growers,*** *1st Sat.;* ***Hemerocallis Society,*** *3rd Sun. of 4 months;* ***Ikebana International,*** *4th Fri.;* ***Iris Society,*** *spring & fall dates;* ***Men's Garden Club,*** *4th Thurs.;* ***Mycological Society,*** *2nd Mon.;* ***Rock Garden Society,*** *3rd Wed.;* ***Rose Society,*** *2nd Thurs.;* ***Ultra Violet Club,*** *4th Mon.;* ***Water Garden Society,*** *2nd Sun. of 5 months.*

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-331-4000

April 1988

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The Flowering of Denver Pre-sale page 5

Green Thumb NEWS

Denver Botanic Gardens
May 1988
Number 88–5

May is Join the Gardens Month

39th Annual Plant and Used Book Sale, "The Flowering of Denver," May 6 and 7

A growing tradition continues as "The Flowering of Denver," the 39th annual Plant and Used Book Sale, gets underway on May 6 and 7, and the Preview (Pre-sale) Party begins Thursday, May 5, at 5:30 p.m. The gates open at York and Gaylord Streets and in Cheesman Park at 9:30 each morning on the 6th and 7th for the early birds. (We do all know what they say about the early birds?) This year the flower selections are the most complete and varied ever offered, just ask our adventurous gardener, Emerson R. Birchfield, who has been reporting on the selections for the past months.

The division chairmen, aided by the DBG staff, have really done an exceptional job anticipating the needs of Denver-area gardeners. "The Flowering of Denver" is a unique event, as it truly strives to promote gardening for all ages and seasons, hoping to serve as a catalyst for a more beautiful city. The sale is open from 9:30 a.m. until 5:30 p.m. and there is no admission charge for the two days.

"Flowering" in the title, "The Flowering of Denver," denotes more than gardening, as the book portion of the sale not only helps you, the book collector, find that special book, but more importantly, it helps broaden the collection in the DBG Helen Fowler Library.

According to Susan Coombes, chairman of the book sale, there is a large and varied selection of books on gardening, health, mysteries and cooking, including cooking magazines. Additionally, there will be lots of complete sets. Ms. Coombes states they also offer cancelled, foreign stamps and collectable books, which are as valued for their rich leather bindings as their contents.

The plants are displayed throughout the gardens in the following divisions and you should watch for colorful flags noting their locations. The divisions are: annuals, berry basket, bonsai, cactus, herbs, home donations, lilies and summer bulbs, perennials, roses, trees and shrubs, vegetables and water lilies. Inside, John C. Mitchell II Hall overflows with houseplants including orchids and more cacti while book selections are found downstairs in the classrooms.

Co-chairman Jane Washington has increased the gift selections that are especially appropriate for Mother's Day giving. Assisted by Ellen Gollembeck and Duane Hutchinson, she has selected garden statuary, gaily planted baskets of flowers, not to mention

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At "Flower Power," the 1987 Plant and Used Book Pre-Sale

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The Gift Shop has reopened!

Gift Shop Grand Reopening

The Gift Shop is gearing up for its grand reopening after being closed for roof repairs. No firm date can be set as this newsletter goes to press, but they will be back in business in time for the Plant and Used Book Sale and they will be featuring a fresh new look!

Some great new merchandise is coming in for the Plant and Used Book Sale. The Gift Shop volunteers are especially proud of their new garden ornaments—animals, children and sundials crafted of hand-finished bonded marble. Especially winning are the turtle, sly fox and small boy holding a bird. These wonderful, durable ornaments are fully weatherproof and can grace your garden year after year.

There is also a large assortment of copper and brass weather vanes, flower motif wind socks, bird feeders and many new, beautifully toned wind chimes.

For inside the home they have purchased soft sculpture cacti for a Southwestern feel (no watering required). If you prefer a country style, they have fabric-lined baskets in many shapes and patterns as well as cut metal wreaths with spring designs (you saw these in Christmas versions at the Holiday Sale last November).

For a fun gift, check out the pastel T-shirts, silk-screened with a drawing of DBG's Conservatory. And for yourself, browse through the new notecard designs (including some beautiful watercolors). They will also be featuring a new collection of elegant cachepots for the geraniums you purchase at the Plant and Used Book Sale.

A final note. As a great big thanks to members of DBG, effective June 1, the Gift Shop will begin giving a 10% discount on all purchases above $10. Be sure to bring your membership card with you each time you visit the Gardens.

Tributes

In memory of William H. Anderson, Jr.
Dr. William G. Gambill, Jr.
Max & Eileen Price

In memory of Betty Mitchell Barker
Anthony M. Combs
Mrs. Richard Davis
Mr. & Mrs. Wilbur M. Lakas
Mr. & Mrs. Allan Phipps
Mr. & Mrs. F. George Robinson
Katherine J. Shoen
Mr. & Mrs. George S. Writer

In memory of Charlotte Ann Burke
The Rev. William and Anne Campbell

In memory of Cordelia "Noni" Gould
Mr. & Mrs. Thomas E. Taplin

In memory of Allan Hickerson
Mr. & Mrs. Thomas E. Taplin

In memory of Mrs. Delta Israel
Mr. & Mrs. Jack Deter

In memory of Walter K. Koch
Mr. & Mrs. Thomas E. Taplin

In memory of Jene Lesan
Morning Belles Garden Club

In memory of Berenice Taylor Mackenzie
Ms. Barbara Edmondson
Ms. Janet Turner

In memory of John Mackenzie, Jr.
Edward T. Able
Mr. & Mrs. William W. Blackburn
Mrs. Brown W. Cannon
The Costa Family
Ms. Barbara Edmondson
Mr. & Mrs. James R. Hartley
Robert M. Johnson
Mrs. Thomas B. Knowles
Mr. & Mrs. W. Porter Nelson
Mrs. E.B. Rockwell
Mr. & Mrs. Bayard K. Sweeney, Jr.
Mr. & Mrs. Thomas E. Taplin
Ms. Janet Turner

In memory of Mary Raith
Mr. & Mrs. Robert Barth
Mr. & Mrs. Barney J. Bequette
Mr. & Mrs. Richard Blackhall
Dr. William W. McCaw
Mr. & Mrs. Marshall R. Diggs, Jr.
Fran Regner
Frederic & Julie Stoffel

In memory of William Timpte
Mr. & Mrs. Ralph Rauscher

May is Join the Gardens Month

During the month of May the Gardens will be instituting a major membership drive. You, our members, are personally aware of the benefits you have by belonging to Denver Botanic Gardens. Classes, field trips and tours provide you with opportunities to learn more about our diverse climates and the plant materials to be used in your home and yard. Beautification of our environment is important to us all.

You are our best ambassadors and we ask that you help us make this drive a success. Tell your friends. Encourage them to join you this summer at the Gardens and take advantage of the many activities that will be happening.

As an incentive to join, new members will receive $5 off the regular membership price for a Family/Dual membership or above. In addition, any members who upgrade their membership or any new members joining at the Contributing ($50) level or above will receive a 1987 Plant Sale Poster.

Remember: Being an Advocate Member ($300), entitles you to receive, by mail, a pair of tickets for each of our summer concert events.

Green Thumb News
Number 88–5 May 1988

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 331-4000.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than April 20 for June, May 20 for July and June 20 for August.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 331-4000 for details.

Accredited by the American Association of Museums

Summer Concert Season Opens With the Dirty Dozen Brass Band

Starting on June 23 and 24 with the Dirty Dozen Brass Band from New Orleans and ending in August with a group from the Santa Fe Chamber Musical Festival, the 1988 Garden Concert season promises to be the most exciting yet.

Denver Botanic Gardens and KCFR-FM have arranged the following:

June 23 & 24	Dirty Dozen Brass Band
July 7 & 8	Music from the Aspen Music Festival
July 21 & 22	Paul Winter Consort/ Dimitri Pokrovsky Singers
August 4 & 5	Cleo Parker Robinson Dance Ensemble
August 18	Joel Nascimento/The Brazilian Sextet
August 19	Music from the Santa Fe Music Festival

Tickets will again be $5 for members and $7 for non-members, except for the Paul Winter Consort performances when they will be $8 and $10. Again this year there will be parking in Cheesman Park and a shuttle system available. A petition is circulating that may limit parking north of the Gardens on concert evenings. Look for complete information on parking, concert times, ticket sales and locations in your June newsletter.

Young Audiences Concerts

Young Audiences Inc. will again present concerts specially designed for your children. The dates are Tuesdays, June 28, July 12 and July 26. Watch your June newsletter for a complete listing of performances, times and ticket locations. These popular family concerts provide a variety of entertainment for all ages and the fun begins on June 28.

Denver Artists' Guild Presents Juried Show

The Denver Artists' Guild will sponsor a show and sale in John C. Mitchell II Hall May 19 through May 22. The juried show will include approximately 100 flat art works in all media with prices from $100 to $8,000. A portion of the sales will benefit Denver Botanic Gardens.

Hours for the show are 9:00 a.m. to 4:45 p.m. There is no admission charge beyond the regular non-member gate fees.

For further information call 755-2783.



Join your friends at the 1988 Summer Concert Series.

Iris Society Show and Sale

A true indicator of summer's approach is the annual Iris Show and Sale. Sponsored by Region 20 of the American Iris Society, it will be presented at Denver Botanic Gardens the weekend of June 4 and 5, just at the peak of bloom for the Gardens' spectacular iris collection.

The show, in John C. Mitchell II Hall, will be open from 1:00 to 4:45 p.m. Saturday and 10:00 a.m. to 4:45 p.m. Sunday.

More information will be forthcoming in the June *Green Thumb News*. Also, if interested, please contact Regional Vice President Jess Quintana, 777-2452, or Show Chairman Dave Miller, 233-5561.

Meet the Natives Has Been Revised

Good news! DBG's eighth edition of *Meet the Natives* will be available for purchase at the Plant and Used Book Sale, May 6-7.

M. Walter Pesman wrote the earlier editions of this book for amateur botanists using non-technical language, altitudinal zones and flower colors to assist in learning the names of Rocky Mountain flowers, ferns and trees.

Botanists at DBG have further simplified the book in this revision by placing line drawings in the margins and grouping plants into families within each color and altitudinal zone. If purchased at the sale, you can receive autographed copies from the "revision committee."



Young Audiences Concerts series begins June 28.



Emerson R. Birchfield on the Adventurous Gardener

Spring is the season of temptation for the gardener. It is nearly impossible to resist the new and enticing flower introductions. The folks at "The Flowering of Denver," the 39th annual Plant and Used Book Sale on May 6 and 7, are about to make it that much more difficult. Not only do we find pleasure in the familiar old friends in our gardens (and decide we need a lot more), but our hearts and souls tell us we must add a touch of the unique and exotic—never mind the size of our gardens or budgets.



First stop for the adventurous gardener must surely be the annuals division, wherein Cari Adams and Joedy Arnold offer only the best. In the "Avante-Gardener" selection we find the intriguing *Brachycome,* Swan River daisy, an Australian annual smothered with small purple daisies; *Crepis rubra,* something like a pale pink dandelion; *Craspedia,* globes of yarrow yellow; and *Nolana,* bearing lavender cups with creamy white throats. If that isn't enough, consider the alluring *Hibiscus* 'Disco Bells' with enormous red or white blossoms; *Lavatera* 'Silver Cup', with glistening pink hollyhock-shaped flowers; the jewel-toned *Nemesia,* a petite member of the snapdragon family; *Schizanthus,* poor-man's orchid, which will enrich your garden with feathery foliage and bright butterfly like blooms; dwarf variegated *Ipomoea,* morning glories; and *Tripteris,* a Day-glo orange daisy from South Africa.

Mrs. Arnold tells us "The best news for gardeners is that they can select annuals in separate colors, especially the popular varieties like nasturtiums, snapdragons, verbena, dianthus, larkspur (seven colors!), asters and sunflowers." She waxes enthusiastically about the 'Italian White' sunflower, which she describes as "scrumptious in bouquets."

The "Fragrant Garden" collection offers the promise of sweet-scented heliotropes, nicotianas (flowering tobacco), mignonettes, candytufts, stocks, carnations, and 'Snoopea' bush sweet peas. Special note must be made of the little-known *Matthiola bicornis,* night-scented stock, which begins to waft an exquisite perfume over the entire garden at dusk. A late supper on the terrace becomes an enchanted evening engulfed in its perfume.

The enormous interest in flowers for drying has prompted the creation of the "Everlasting" group, with Denver's largest selection, including strawflowers (in separate hues of silvery rose, purple, lemon, bright pink, frosted sulphur and white), ornamental corn, strawberry popcorn, statice in separate colors, and *Nigella damascena* 'Love-in-a-Mist'. The assortment of ornamental grasses is amazing, with the popular ruby grass, squirrel's tail (for wreaths), hare's tail and quaking grass.

Annual vines include feathery-flowered *Tropaeolum peregrinum,* canary creeper; *Eccremocarpus,* Chilean glory flower; and *Rhodichiton* with dusky maroon bells.



Even the most adventurous gardener should leave room for selections from the "Old Fashioned" and "Cutting Garden" assemblage. Progress will never overshadow *Trachymene,* blue lace flower; scabiosa, pincushion flower; cleome, the six-foot spider flower; balsam; larkspur; or the bright lollipoplike annual gaillardia.

The edible landscape has begun to receive renewed interest lately, dispelling the notion that "you can't eat pretty." Imagine a salad of flowers, such as nasturtiums, violets, signet marigolds, borage, and chive blossoms.



While your stomach is holding sway, mosey over to Knobby Brown's vegetable division, which we can unequivocally state, once again, features only the best. Perhaps you haven't tried vegetables in your garden because you've thought most of them a tiresome green. Consider the following varieties, which are not only great eating, but add a splash of color to your garden. In addition to nine varieties of red tomatoes, we'll have 'Yellow Plum', 'Gold Nugget', and 'Golden Boy'. 'Gold Rush' zucchini, 'Patty Pan Sunburst' squash and the tasty white acorn squash (developed by Geri Swan of Lakewood) will never get lost in the leaves. Even more color is possible with both medium- and baby-sized varieties of Bronco-orange pumpkins, 'Ruby' red cabbage, crinkly rosettes of red lettuce, and a rosy radicchio. Peppers come in a veritable rainbow of colors—red, yellow, gold, purple, even chocolate.

"The best news for gardeners is that they can select annuals in separate colors, especially the popular varieties"

For an international touch, you might want to grow Mexican tomatillos and jalapeños, French 'Chaca' cantaloupes, Chinese pak choi, German 'Kagraner Sommer' lettuce, Japanese 'Ichiban' eggplant, Italian 'Roma' tomatoes or New Zealand spinach. In addition, Mrs. Brown offers the best of All-American varieties, selected to grow well in our climate, mature early, produce prolifically, resist disease and taste superb.

Ken Robert's idea of heaven is to stroll about his garden, popping handfuls of juicy fruits into his mouth—perhaps the ultimate diet-and-exercise program. In his "Berry Basket" division, look for everbearing 'Fort Laramie' strawberries, hardy kiwi and luscious 'Fall Gold' raspberries. Take Ken's advice and plant several gooseberries, including 'Pixwell' (it makes sinful pies) and the hard-to-find European dessert gooseberry, which is a gourmet treat. First-rate shrubs even without a fruit, gooseberries display a graceful arching habit and brilliant autumn coloring. If you are stingy about sharing your berries with the birds, Ken's division sells birdseed and the famous "Droll Yankee" bird feeders.

Gardening is a pastime for all seasons and all ages. Our special children's section features a vegetable plot for hands-on experience. With Mother's Day on Sunday, children have the opportunity to plant a basket of posies for giving (perhaps Mom should discreetly leave for a glass of herbal iced tea so as not to ruin the surprise). Plump orange marigolds named 'Garfield' are delightful paired with 'Goldilocks' rudbeckia and 'Teddy Bear' sunflowers. Kids young and old will be fascinated with the Easter eggplant, dinosaur gourds and louffa gourds, which, when ripe, produce natural sponges. Popcorn 'Pretty Pops' has a mixed mosaic of kernels on the cob, and a taste that would tempt Orville Redenbacher himself.



Speaking of popcorn, any gardener worth his salt will be seen hovering around the "Summer Bulbs" division. Having a case of chronic "lilyness," chairman Tom Peace is especially pleased to offer the new hardy *Lilium* 'Corsica' with pastel peach blossoms and a straw yellow throat. Other favorites are the luscious apricot-colored 'Chinook' and dusty lavender 'Rosita'.

Notable among the bulbs are choice selections of gladiolus, dahlias, cannas and *Liatris,* gay-feathers. The avante gardener will be remiss not to secure a bag of *Acidanthera* corms, also called Abysinnian gladiolus. An excellent flower for cutting, this trouble-free rarity produces four-inch sweet-scented white blossoms with a maroon blotch.



Betty Lou Roberts and Ruth Cran from the rose division remind us of the diversity of the "Queen of Flowers," with expanded varieties of hybrid teas, floribundas, grandifloras, miniatures, old garden roses and climbers. New roses for 1988 are 'Mikado', 'American Queen', 'Prima Donna' and 'Ralph's Creeper', a new ground cover variety of miniature rose.

Lest anyone accuse us of ignoring the indoor gardener, John C. Mitchell II Hall is chock-a-block full of houseplants ranging from cacti and orchids to diminutive succulents and streptocarpus to hanging baskets. The charming miniature African violets have proven very popular, as have the braided fig trees. Houseplant division head Sandy Sullivan is very enthusiastic about the 'Dallas' fern as an easy keeper. "It will take a lot of abuse," she claims, "and even though it isn't as picky about care, it's actually fuller and prettier than most of the other ferns. By popular demand, we've brought back the carnivorous plants, such as Venus fly-traps."



All the hub-bub in the rock alpine division is probably over the dwarf conifers, and for good reason. This is undoubtedly the finest collection ever offered to the public. Dwarf conifers are, of course, ideal for rock and perennial gardens, as well as for trough gardening. Troughs, often resembling antique English stone sinks, open new possibilities for growing choice alpine plants. Those without proper rock gardens now have the perfect approach to discover the joys of this wonderful style of gardening. Expert advice is given on planting and care of troughs, and a limited number will be available for those who arrive early.

"By popular demand, we've brought back the carnivorous plants, such as Venus fly-traps."

One word of caution from one who knows—with over 500 varieties to peruse in this division alone (including new gentians, saxifrages, dianthus, dodecatheons, penstemons, et al), plan to take an entire day off and bring your own red wagon or wheelbarrow (for some of us, a moving van would be useful). To add to the dilemma, a vast assortment of ground covers is tempting, rated by Panayoti and Gwen Kelaidis for their Colorado suitability. Only those making the grade on their scale have been chosen, but that still leaves 50 varieties to investigate!

All gardening is an adventure. Savoring the first tomato or putting the nose to a perfect rose (hopefully not housing a bumblebee) are the rewards. The wonder of a new flower unfolding for the first time, or a child learning the secrets of cultivating a vegetable patch, are the joys. May the "Flowering of Denver" begin your adventure this season.

(Emerson R. Birchfield is our special correspondent for "The Flowering of Denver" on May 6 and 7. An admitted "mad gardener," he denies having given 20 yards of compost and a rototiller to his wife on her birthday.)

39th Annual Plant and Used Book Sale

continued from page 1

some practical items such as gardening gloves and bird feeders. A delightful, yet affordable, terra-cotta birdbath is also a desirable gift item, possibly for your own yard.

The volunteer cashiers, coordinated by Norma Linderholme and Pat Sadlowski, are located at the Gaylord gate and the south gate at the Botanic House parking lot (909 York Street). Express lanes will expedite check-out, and both Visa and MasterCard are accepted.

Customer service chairman Chuck Simpson has devised more convenient methods for shoppers. Plant purchases may be checked at "corrals" at either the Gaylord gate or the south gate. Claim checks will be issued, and purchases will be kept while drivers bring their cars to the corrals. Parts of York Street and 11th Avenue will have parking restrictions to accommodate motorists picking up purchases. The city will allow parking in Cheesman Park for this event and customers may enter the Gardens through the west gate located in Cheesman Park. (**NOTE:** There will not be check-outs at this gate; it is for entrance only).

Special events in the gardens this year will include "Too Tall" the clown, balloons, demonstrations, refreshments and door prizes.



Too Tall will once again entertain visitors at the Plant and Used Book Sale.

The Preview (Pre-Sale) Party, which is a special event in and of itself, is in its second year and has become an anticipated opportunity to purchase plants. It was a delightful evening last year and that ambience will be repeated this year. The Botticelli String Quartet will provide the musical backdrop as advance shoppers purchase roses and books, enjoying the magical beauty of the gardens at sunset. Co-chairmen Angela Overy and Lin Hulbert have donated a lot of their time and energy to create this lovely evening.

Reservations are required for "The Flowering of Denver" Preview Party. A special coupon was provided in the April *Green Thumb News* for the Presale Party. Spaces may still be available and you can call the DBG Development Office at 331-4000 for details. Reservations are $40 per person and they include a cocktail buffet plus an opportunity to select from the "cream of the crop" of plants and books at the sale.

The Plant and Used Book Sale is a major source of funds for Denver Botanic Gardens and your purchases help to beautify and maintain the gardens. We hope to see all of you bright and early on May 6 and 7. Grab your plans and your wagons and enjoy a day at DBG developing your landscape and supporting our gardens.

CLASSES

Spring
1988
Denver Botanic Gardens

Spring Birdwatching Specialties

(two sessions)
Monday, May 2 from 9 to 11 a.m. in Classroom B followed by a field trip until 1 p.m. at Wheat Ridge Greenbelt
Monday, May 16 from 8 a.m. to noon at Chatfield Reservoir State Park

Learn to accurately identify Colorado's common and not-so-common birds that are found in the spring. View our feathered friends in their colorful breeding attire and maybe even get a glimpse of some unusual migratory species such as the rose-breasted grosbeak and warblers.

Bird skins for study and handouts will be provided.

Please bring whatever avian field guide you have to the first session. *Field Guide to the Birds of North America,* a National Geographic Society publication, is recommended. Don't forget to bring your binoculars to both sessions. Wear sneakers or walking shoes for the one-mile walk on flat terrain at each session. You'll also need water and a rain jacket; lunch is optional but consider bringing a snack.

Meet: The first session consists of two hours in the classroom followed by a field trip to Wheat Ridge Greenbelt; carpooling from the Gardens will be encouraged. The second class will meet at Chatfield Reservoir State Park and a specific meeting site will be discussed in class. Please note that each car entering the state park must pay $3.

Instructor: Tina Jones is a wildlife instructor who teaches throughout Colorado. She is a board member of The Colorado Field Ornithologists and has birded extensively throughout the United States.

Fee: $28 members/$30 non-members

Mushroom Identification

(two sessions) Classroom C
Saturdays, June 4, 11
8:30 a.m. to 12:30 p.m. and optional field trip from 1:30 to 3:30 p.m.

This course will present mushroom identification for beginners and will provide a base for those who may wish to pursue the subject in more depth in the future.

Spring-fruiting mushrooms of the city as well as the summer fruiting species of the high country will be covered.

Two slide-lecture sessions cover structure, growth, habitat, seasonality, toxicity and edibility of mushrooms. The use of field guides and keys will be demonstrated and recommendations will be given on those most useful in our area. Recommended field guides will be available for purchase.

Handouts will be distributed but students should be prepared to take additional notes. Participants will learn to positively identify more than 20 common edible, non-edible and poisonous mushrooms in addition to helpful collecting, cleaning, preparation and cooking hints.

An optional field trip to areas near the Gardens will be scheduled in the afternoon of each session.

Those planning to attend the field trips should bring a sack lunch. Prospective students should be on the lookout for early mushrooms and may bring them to class for identification.

Instructor: Marilyn Shaw lectures and teaches extensively and has been active in the Colorado Mycological Society for 15 years. Ms. Shaw is a consultant in mushroom identification for DBG and the Rocky Mountain Poison Center.

Fee: $50 members/$55 non-members



Design for the Urban Garden

(two sessions) 9:30 a.m. to noon
Friday, July 29 and Saturday, July 30

Tour a handful of city gardens of stunning beauty whose owners have coaxed horticultural wonders from barren lots. These range from an intimate courtyard to a rambling cottage garden, and will excite novice and experienced "green thumbs."

Dealing with shade, clay and other challenges, these gardens present possibilities for even (seemingly) hopeless sites. The focus will be on creating a personal and colorful garden with common and unusual perennials, shrubs, bulbs, herbs and annuals.

You'll want to bring a notebook and possibly a camera.

Meet: Promptly at 9:30 a.m. at the main entrance to the Gardens to receive directions and carpool.

Instructor: Rob Proctor combines art and gardening in an interesting way. His award-winning urban garden is the inspiration for his botanical drawings. An internationally known watercolorist, Mr. Proctor is an art instructor at DBG and his work is currently exhibited at the Smithsonian Institution. His skills are in demand as a perennial garden consultant.

Fee: $20 members/$22 non-members

Limit: 12

Wildflowers of the Plains Field Trip

(one session) 10 a.m. to 3 p.m.
Section I: Wednesday, May 11
Section II: Saturday, May 21
Please indicate your section on the registration form.

This spring field trip at the edge of the plains at Plainview is an opportunity to see the spring flora of this area in its full glory. See the Rocky Mountain iris, orange arnica, western wallflower, bluemist penstemon, Easter daisy, spring-beauty, pasqueflower and many others.

Don't forget to bring your lunch and drinking water; if you have wildflower field guides and a hand lens, they would also be useful.

Meet: promptly at 10 a.m. at the junction of Highways 93 and 72 between Boulder and Golden in the parking lot at the southeast side of the intersection. Please call the Education department if you have questions.

Instructor: Paul D. Kilburn, Ph.D., has taught botany and ecology in Illinois and Colorado for many years.

Fee: $5 members/$5.50 non-members

Plant Life Field Trip: Mesa Nature Trail, Boulder

Wednesday, May 18
9 a.m. to 3 p.m.

The section of the Mesa Nature Trail near the National Center for Atmospheric Research (NCAR) is of particular ecological interest. Visit this transition area from grasslands to foothills and observe the profusion of plant and animal life found there.

Expect to see wallflowers, wild iris,

sand lilies, blue mist penstemons and pasqueflowers.

Don't forget your lunch and drinking water.

Leader: Mary Edwards is an enthusiastic botanist who leads many botanical field trips and volunteers at the Kathryn Kalmbach Herbarium at DBG.

Meet: at 9 a.m. in the main DBG parking lot to carpool and receive directions.

Fee: $2 per person

Limit: 20

Ecology and Flora of North Table Mountain

(one session)
Saturday, May 28
10 a.m. to 3 p.m.

This is a field foray to examine the native biology as well as man's use of this lava-capped mountain, rising 1,000 feet above the plains, and located northeast of Golden just 15 miles from Denver.

Explore this natural history gem with its wide variety of grassland and shrub communities and geology and wildlife. See stands of mountain mahogany, snowberry, skunkbush, chokecherry, mountain maple, lichens and the abundant spring flowers of the foothills.

Meet: promptly at 10 a.m. 1.8 miles north of Highway 58 (Golden) on Highway 93 at the gravel road on the east side of Highway 93 (by small cottage).

Instructor: Paul D. Kilburn, Ph.D.

Fee: $5 members/$5.50 non-members

Wildflower Foray to Means Meadow, Evergreen

Sunday, June 12
10 a.m. to 3 p.m.

Learn about the wildflowers and ecology of the montane zone. This is an easy hike through ponderosa pine woodlands and Douglas fir communities with their associated shrubs (bearberry, blueberry and currant) in the lower montane zone. See spring in its full glory with blooming puccoon, yellow stonecrop, Western wallflower, skullcap, sugar bowls and many others.

Bring a lunch and hand lens and plant identification books, if you have them.

Meet: promptly at 10 a.m. at the northeast parking lot at Rock Cut (I-70, exit 259).

Leader: Paul Kilburn

Fee: $5 members/$5.50 non-members

Beginning Bonsai

(three sessions)
Wednesdays, May 4, 11, 18
7 to 9:30 p.m. Classroom B

This introductory course will cover the historical and cultural techniques of bonsai, the art of crea ing dwarf trees and shrubs. Instruction on styling, training, potting and general care of bonsai will be included.

Each student will take a completed bonsai home and all materials will be provided.

Instructors: Keith Jeppson, past president of the Rocky Mountain Bonsai Society, is an experienced bonsai hobbyist of 16 years. Harold Sasaki is a commercial bonsai grower with 18 years of experience. Both are capable instructors.

Fee: $52 members/$57 non-members (includes a $22 materials fee)

Limit: 15



Nymphaea 'Emily Grant Hutchings'

Water Gardening for Colorado

(two sessions)
Tuesdays, May 17, 24
7 to 9 p.m. Classroom C

With such diverse plants as the smallest flowering plant in the world (*Wolffia* sp.) and the giant water platter (*Victoria* sp.), the world of aquatic plants offers excitement to both professional gardeners and amateurs. The content of this "how-to" course includes: water gardening history; pool design and construction; variety selection, cultivation and display; hardy and tropical bog plants; half-barrel displays; the culture of the Victoria water lily and lotus as well as floating plants; sources of plant material; and special problems.

Through slide presentations, demonstrations and discussions, learn to incorporate these unusual plants into your home landscape.

Instructor: A Gardener Florist II at Denver Botanic Gardens, Joseph V. Tomocik maintains our Aquatic Plant Display and enjoys sharing his enthusiasm for these "wet wonders" of the plant kingdom with others.

Fee: $16 members/$17.50 non-members

Know and Grow Orchids

(three sessions)
Wednesdays, May 25, June 1, 8
9:30 to 11:30 a.m. Classroom C

Discover the fantastic orchid family and their basic cultural requirements in this three-session course. Following an introduction to the natural and human history of the orchids, participants will learn how to develop a good collection for their homes and greenhouses.

Fundamentals of soil media, watering and fertilizer will be covered through lectures and demonstrations. Each student will have the opportunity to take a division home following a hands-on dividing and repotting session.

Instructor: Botanist Horticulturist Larry Latta has been an orchid hobbyist for over 15 years. He has observed and collected orchids in the wilds of Ecuador, Venezuela and eastern Mexico.

Fee: $24 members/$26.50 non-members

Japanese Tea Ceremony

Section III: Sunday, May 8
Section IV: Saturday, May 21

(one session) 2 to 3 p.m.
Tea House in DBG's Japanese Garden

Please indicate your section on the registration form.

Because of its emphasis on such concepts as harmony, respect, purity, tranquility and elegant simplicity, the tea ceremony has for centuries been considered the epitome of Japanese life. This is an opportunity to experience an authentic tea ceremony in the quiet splendor of our Japanese Garden.

Instructor: Kathryn Kawakami has done much to inform Denver area residents and students about the culture of Japan. She will be assisted by William Crowder who studied the tea ceremony in Japan at Ura Senke.

Fee: $4.50 members/$5 non-members

Limit: 15

Facing page: Wild flax, Linum lewisii, by Emma Ervin

Beginning Copperplate

(six sessions)
Tuesdays, May 3, 10, 17, 24, 31, June 7
1 to 3 p.m. Classroom B

Copperplate originated in the 17th century and had many uses from labeling botanical illustrations to accounting. Its popularity grew due to the ability to write at a fast pace and still remain neat and legible. The script is achieved using a flexible point, unlike most calligraphy which uses a broad edge.

This introductory course will teach students basic letter forms of the script, the use of proper materials, color and simple design.

Instructor: Alicia McKim studied art at Western State College and is a freelance calligrapher whose work is exhibited widely.

Fee: $48 member/$53 non-members. Necessary supplies will be available at the first class for approximately $10.

Chair Caning

(five sessions) 7 to 9 p.m.
Thursdays, May 19, 26, June 2, 9, 16
DBG's Morrison Center

Learn an age-old craft. Replace that sagging or broken seat in your hard cane, pressed cane, rush or reed chair. With homework, you'll be able to complete at least one project during this course.

No previous experience is necessary. Materials will cost approximately $10-$20 and can be purchased at the first session. The instructor will contact each student prior to class to discuss each project.

Instructor: Jill Goldberg is a self-proclaimed "cane addict" who learned the art from her mother. She has taught numerous courses and operates her own business, "The Able Caner."

Fee: $40 members/$44 non-members. Materials are purchased separately and depend upon individual projects.

More Lessons in Ikebana

(four sessions) 10 a.m. to noon
Saturdays, June 4, 11, 18, 25
DBG's Morrison Center

This course is for students who have had some previous instruction in ikebana and will include an introduction to nageire.

Please bring the following materials to class: a round or rectangular ceramic flower container (no smaller than 12 inches long and two inches deep), two needlepoint flower holders (one that is two inches wide and one that is three inches wide or larger), sharp clippers, small bucket (or other container to hold flowers and water), a tall (ten inches or more) container for nageire and a notebook.

Although flowers will be provided, students should bring their own line material (branches) cut from their yards.

Instructor: Joan Wooldridge

Fee: $44 members/$47 non-members (includes $12 for flowers)

Limit: 12

Photography and Botanical Illustration Field Trip

Wednesday, June 29
8:30 a.m. to 4 p.m.

This is a field trip to the historic Evans Ranch, near Evergreen, for students of photography or botanical illustration. Established in 1868, this 3,200-acre ranch has a spectacular view of Mount Evans and a lush collection of mountain wildflowers. Beginners to experts are all welcome.

Wear sturdy walking shoes and remember to bring rain gear, a sack lunch, drinking water and your own drawing materials or photography equipment.

Suggested photographic equipment consists of: Kodachrome film (ASA 25 or 64), tripod and macro-lens or three-ring lenses. Suggested drawing materials are: drawing pad and pencils, magnifying glass and watercolors or colored pencils.

Meet: promptly at 8:30 a.m. in the main DBG parking lot to carpool.

Instructors: Bob Heapes is an experienced field trip leader, nature photographer and popular lecturer. Angela Overy received her National Diploma of Design and designed in London, New York and San Francisco before settling in Denver.

Fee: $8 members/$9 non-members

Limit: 15 photographers and 15 illustrators. Please identify on the registration form which category you are most interested in.

Learn to Draw Colorado Wildflowers

(six sessions) Classroom B
Tuesdays, June 7, 14, (skip June 21), June 28, July 5, 12, 19

Section I: 9:30 to 11:30 a.m.
Section II: 7 to 9 p.m.

Please indicate your section on the registration form.

No experience necessary! In this class, students will learn to make beautiful, accurate botanical drawings of some of Colorado's prettiest wildflowers.

Participants will start to work in pencil and will eventually progress to watercolors. Please bring drawing pencils and an eraser to the first class.

Instructor: Angela Overy received her National Diploma of Design from London University, England, and designed in London, New York and San Francisco before settling in Denver. Over the years, many DBG students have found a new interest and ability in her enthusiastic classes and lectures.

Fee: $53 members/$58 non-members (includes $5 for materials)

Limit: 15

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206
Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 331-4000.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes_____

Name_____

Address_____

City_____ State_____ Zip_____

Daytime Phone_____ Evening Phone_____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

Guides Needed for New Pre-school Program

Training classes begin May 11 at 12:30 p.m. for DBG's new pre-school Guiding Program. Tours designed for our very young visitors will be led in the Morrison Horticultural Demonstration Center throughout the summer.

The Morrison Center offers unique learning opportunities for these youngsters; it provides these small children their own special place to learn about plants. Guides will learn how to share botanical information in ways that children can enjoy. A four-week training program will introduce the guides to the Morrison Center and the enjoyable plants it contains. Classes begin Wednesday, May 11, and end Wednesday, June 1. They are scheduled from 12:30 to 2:30 p.m. and registration is only $10 to cover materials.

This is a volunteer position and by volunteering you will become eligible for certain benefits in addition to knowing that you have helped the Gardens meet the ever-increasing demand for tours from school groups.

We are looking for special guides who enjoy talking about spines that bite, plants that munch and flowers for bees. If you are interested and you have time available to donate this summer, call the Education department at 331-4000. Classes begin soon.

If you would like to bring a group for one of these special tours, reservations and group discounts can be arranged by calling the Education department at least four weeks in advance.

DBG Receives Two Awards

Honor has been bestowed on the Gardens for two exhibits recently displayed.

The first was the premier Education Award for the best exhibit in the education section at the 29th Annual Colorado Garden and Home Show, held in Currigan Hall early in February. The Rock Garden theme was carried out by the many fine photographs that were mounted and displayed by Evelyn Murrow, a valuable volunteer.

Secondly, at the Associated Landscape Contractors of Colorado Conference and Trade Show, Denver Botanic Gardens was awarded the prize for the best non-commercial exhibit. Again, Ms. Murrow is to be thanked, as she put the display together. It featured some beautiful photographs that were positioned on adaptable display panels the Gardens recently purchased.



Prickly poppy, Argemone polyanthemos

Naturalist-Guide Training Program Underway at Chatfield Arboretum

A diverse range of plants can be found growing at Chatfield Arboretum, as well as a diversity in plant communities. Visitors can walk along a path through a dense riparian community to some small ponds to study the wetland's plant community or just listen to the sounds of frogs. A quick stroll will return you to the plains community filled with grasses, asters, mustards and much more.

Classes for training Naturalist-guides to serve Chatfield Arboretum began late February, meeting three hours once a week. Classes ended April 23 with a "graduation ceremony" and potluck luncheon for the volunteers and their families.

Jim and Vickey Trammell coordinate the program. Dr. Trammell is a professor at Arapahoe Community College and Mrs. Trammell teaches at Arapahoe Community College and Metropolitan State College. Both were active in developing the volunteer program at Roxborough State Park.

They were assisted by instructors Ann Bonnell, birds; Dr. David Cooper, wetlands environment; Paula Ehresman, local history; Tina Jones, mammals and animal tracks; Mary King, reptiles; Gaither Randall, local geology; Dr. Richard Schwendinger, soils; Dr. Moras Shubert, botany; and Mary Washburne, Chatfield development.

The development of a loyal corps of volunteer Naturalist-guides makes it possible for the Arboretum to be open on a part-time basis for the first time. Guided tours are now available on a limited basis and can be arranged by calling 973-3705. This is the busy season and messages left on the answering machine will be returned promptly.

Chatfield Day for Our Members Only

You've been reading about it and recently you've been hearing about it and now, as members of Denver Botanic Gardens, you have the opportunity to see Chatfield Arboretum.

A nature trail winds through the riparian community, you can stand next to the old schoolhouse and look out over the plains to the east or look over your shoulder to enjoy the view of the nearby foothills.

On Sunday, July 10, from 4 to 8 p.m., bring a picnic supper (and some meat to grill), your lawn chairs and wear your straw hat and jeans to Chatfield Arboretum. A large grill will be available to you and your fellow members, as will lemonade, iced tea and cake. Guided tours will be offered or you can explore on the easy hiking trails. Entertainment will be provided.

Reservations for this introduction to Chatfield Arboretum are limited to 300 members. A nominal fee will be charged. Reservations can be made using the reservation form in next month's newsletter.



End your summer days at the Gardens; evening hours begin June 18 and end September 4.

Down the Garden Paths in May

Amazingly, plants are found blooming in the Rock Alpine Garden 12 months of the year, but this marvelous area of the Gardens is especially exciting as it reaches its crescendo of color in May. Whether or not you've given yourself the opportunity to sample the springtime visual delights that have been appearing through the season, you must visit again this month.

At first you will be nearly overwhelmed by the vibrant swatches of color reflected by the various phloxes. Looking from the east entrance, notice what a dramatic foreground they make for photographs framed by the trees of Cheesman Park and the Rocky Mountain vista to the west.

Even more brilliant jewels are the oncocyclus iris (a subgroup of iris native to high, dry areas of western and central Asia). The blossoms of this distinctive group glow especially brightly in our Colorado sunlight. They are well adapted to our climate. Gardeners should make their acquaintance now, and take a few mental notes for comparison with the beautiful, but more common, bearded iris displays of this month and June.



Free Days at DBG for Residents of Denver City and County

Several days have been planned by Denver Botanic Gardens as free days for residents of the City and County of Denver. Although members can always enter at no charge, this might be an excellent opportunity for you to introduce the Gardens to your friends.

The first Monday after the Plant and Used Book Sale has been set aside as a free day, May 9.

Other free days are Tuesday, September 20; Saturday, October 15; Tuesday, November 8; and Thursday, December 8. Only proof of residency is required to enter at no charge on these days. Regular gate admission will apply to non-residents.

Gardening Tips for May

Owners of bluegrass lawns often feel trapped. But they can escape the twice-weekly watering, the repeated application of expensive fertilizers, the constant demand for mowing and grooming and the reliance on pesticides that bluegrass culture demands. The key is close at hand and relatively simple: Choose more suitable grasses.

Although the installation of any lawn is something of a chore and demands a bit of attention to detail, installing a bluegrass lawn leads to ever more chores even after it's well established. It never outgrows its need for coddling. This is partly due to the nature of the bluegrass plant itself, but our arid climate and generally alkaline soils compound its need for never-ending attention. However, we have for our landscaping uses grasses that are both more apt and, many will agree, are more beautiful.

Before the land now covered by our cities, croplands and ranches became smothered, plowed or overgrazed, there existed in this region abundant fine grasses. These grasses, which were very much at home here, were mostly overlooked. These low-maintenance native grasses were not considered alternatives. As a lawn, bluegrass alone was the alternative. It was ill-chosen.

The better choices are buffalo grass and blue gramma. These are warm season plants and they should be seeded this month. The soil should warm enough in May to aid germination, and the long growing season that lies ahead will allow the new lawn to become adequately established before winter.

The primary native grass for Colorado lawns is buffalo grass, *Buchloe dactyloides*. Soft sage or mint green in color, it makes a beautiful sod, rooting frequently along its spreading surface and underground runners. It forms a dense turf that withstands foot traffic. It can be mowed neatly, though it doesn't grow fast enough to justify a regular Saturday morning ritual. Three or four times per year should keep it tidy enough for anyone's standards. Some homeowners who get a great deal of satisfaction from this activity may be disappointed.

Since its mature height is only about four inches, buffalo grass can also be left unmowed where absolute uniformity is not the overriding aesthetic criterion. In this case it needs next to no regular maintenance because amazingly few diseases or pests threaten it. In fact, the major causes of buffalo grass problems are overfeeding and overwatering.

The other major short grass suitable for lawns is blue gramma, *Bouteloua gracilis,* native to the High Plains. A bunch grass, it grows to a natural height of about one foot. Though seldom used by itself, unblended with buffalo grass, it too can be mowed and kept as a groomed lawn. Mowing encourages it to spread and form a sod. It is free of pests and diseases and is tolerant of our arid climate. In the foothills and elsewhere above 7,000 feet it surpasses buffalo grass in endurance.

Its fine blue-green leaves are but one of its admirable features. If allowed to mature to its full height in a meadow or prairie landscape, blue gramma holds its flowers and seeds in gracefully arching flaglike heads that persist throughout the winter.

To form the ultimate in adaptable, drought-resistant, low-maintenance lawns for our region, buffalo grass and blue gramma may be blended. They require little attention after their first year and by their third year they will thirst for only about a third of the water needed by bluegrass turf. In fact, they will usually thrive on the moisture provided by the natural precipitation of the High Plains. They are, after all, natives and they've grown here for millennia without irrigation. To help them live up to their potential as a domesticated landscape feature, however, they will need supplemental soaking during long periods of drought.

The actual work of installing a lawn of buffalo grass, blue gramma or a blend of the two requires no more effort than putting in a lawn of bluegrass. In fact, some shortcuts may be possible.

First, of course, come design considerations. These will be highly personal choices and can't be fully addressed here. Remember, though, that these plains grasses thrive best in full sun and are at their healthiest when they're not overwatered. Trees, shrubs and flowers that are incorporated in the lawn (or meadow) or that border the lawn should be chosen with these characteristics in mind.

Direct seeding is the usual method for starting these grasses. Although care must be taken during this process, it will be seen that this takes less time, water and effort than for a bluegrass lawn. The price of seed for these grasses has risen sharply in recent years because of the demand for reclamation seeding in plowed, erodible lands in the northeastern part of the state. The quality of the resulting lawn, though, will make the initial cost insignificant.

Before direct seeding, the soil must be prepared to a fine tilth. During this process organic matter may be added but if the soil has previously been under cultivation it should not be necessary. Buffalo grass and blue gramma are tolerant of both clay and sandy soils. Very deep tilling is neither necessary nor desirable; the deeper the soil is turned, the more weed seeds that may be brought to the surface to germinate.



Start watching for ducks in the ponds of the Gardens.

Three to four pounds of seed should be evenly spread per 1,000 square feet of lawn area. This may be done using bi-directional hand broadcast or a mechanical grass seed spreader. Use only treated buffalo grass seed, which has undergone a process to improve germination. Untreated seed germinates erratically over a period of several years. Ideally, the seed should be planted to a depth of one-quarter to one-half inch. This is difficult to gauge, however. It is sufficient to rake the seeded area lightly, incorporating the seed with the fine soil particles, then to roll the soil with a heavy lawn roller.

The grass seeds will germinate only if kept constantly moist. Frequent light watering, taking care that washing or puddling don't occur, is essential and is preferable to infrequent deep watering. Fortunately, at this season both grasses germinate within five to seven days, less than half the period required for bluegrass, so this crucial stage is soon over.

During the first year of growth a native lawn may need weekly watering once the seeds have germinated. The first crop of weeds that germinate with the grass should be eliminated by hand, though once the grass has matured the broad-leaved weeds may be sprayed with a suitable herbicide. Whether the ultimate purpose is a groomed or ungroomed lawn, the grass should be mowed when it has reached three inches to increase tillering (spreading by basal shoots) and thickening of the turf.

Only recently has sod become available for these fine grasses, and this writer, after calling 10 companies, has been able to find but one regional source. The Native Sod Company in Denver presently offers a buffalo and blue gramma blend and plans to have unblended sods of each available next year. Sod, of course, offers the advantage of immediate coverage. However, at 35 cents a square foot it is still nearly twice the cost of bluegrass.

This is due largely to the different method of cutting and handling it. It's cut to a depth of 1½ inches, nearly three times the normal sod depth and it is processed in 18-inch squares instead of rolls. The greater depth assures the inclusion of more roots. Until these roots have penetrated into their new soil, this sod should be watered frequently and thoroughly to keep it from totally drying.

Another innovative approach has been taken by Little Valley Nurseries in Brighton: buffalo grass plugs. These are grown 90 "plants" to a regular-sized nursery flat. These plugs may be inserted into prepared soil or directly into a pre-existing bluegrass sod that has been killed with the herbicide Roundup. In either case, daily watering is recommended during the first two weeks. Planted 12 inches apart these plugs should reasonably cover the lawn area within three months. The cost for this method is 20 cents per plug.

It can be seen that the initial cost for a native lawn is not prohibitive for most homes. Over the years these costs will be repaid many times through water, work and problems saved. There is also the matter of suitable beauty. These grasses both look and act at home here. That's because they are.

Larry Latta
Botanist-Horticulturist
Denver Botanic Gardens

CALENDAR

MAY

S	M	T	W	T	F	S
1 May is Join the Gardens Month.	2 Spring Birdwatching Specialties*	3	4 Beginning Bonsai*	5 "Flowering of Denver" Pre-sale	6 Plant and Used Book Sale	7 Plant and Used Book Sale
8 Japanese Tea Ceremony III	9 Free Day for Denver City/ County Residents	10	11 Wildflowers of the Plains Field Trip, Pre-school Guide Class*	12	13	14
15	16	17 Water Gardening for Colorado*	18 Plant Life Field Trip: Mesa Nature Trail, Boulder	19 Denver Artists' Guild Show and Sale	20 Denver Artists' Guild Show and Sale	21 Wildflowers of the Plains Field Trip, Japanese Tea Ceremony IV
22 Denver Artists' Guild Show and Sale	23	24	25 Know and Grow Orchids*	26	27	28 Ecology and Flora of North Table Mountain
29	30	31				

**First meeting of a class with more than one session*

Coming Next Month

June 4 Mushroom ID*, More Lessons in Ikebana*	June 4 & 5 Iris Society Show and Sale	June 7 Learn to Draw Colorado Wildflowers*	June 12 Wildflower Foray to Means Meadow, Evergreen	June 23 & 24 Dirty Dozen Brass Band	June 26 Photography and Botanical Illustration Field Trip	June 28 Young Audiences Concert

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at Denver Botanic Gardens. Here is a listing of those groups and a ***general*** *indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 331-4000.*

African Violet Society, *4th Thurs. of 7 months;* ***Bonsai Society,*** *1st & 3rd Tues.;* ***Cactus & Succulent Society,*** *2nd Tues.;* ***Civic Garden Club,*** *1st Fri.;* ***Colorado Native Plant Society,*** *4th Wed.;* ***Gloxinia Gesneriad Growers,*** *1st Sat.;* ***Hemerocallis Society,*** *3rd Sun. of 4 months;* ***Ikebana International,*** *4th Fri.;* ***Iris Society,*** *spring & fall dates;* ***Men's Garden Club,*** *4th Thurs.;* ***Mycological Society,*** *2nd Mon.;* ***Rock Garden Society,*** *3rd Wed.;* ***Rose Society,*** *2nd Thurs.;* ***Ultra Violet Club,*** *4th Mon.,* ***Water Garden Society,*** *2nd Sun. of 5 months.*

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-331-4000

May 1988

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May is Join the Gardens Month

Green Thumb NEWS

Denver Botanic Gardens

June 1988

Number 88–6

Summer Concert Series Schedule

The Dirty Dozen Brass Band from New Orleans will "kick-off" the 1988 Garden Concert summer series. Thanks to KCFR-FM and United Banks, who have combined resources with Denver Botanic Gardens, a most impressive program will be presented this year.

Special parking arrangements have been provided for concertgoers. Again this year the west gate of the Gardens will be open and parking will be permitted in Cheesman Park on concert evenings. We think you will find this a convenient parking option and you will certainly enjoy the beautiful stroll through the Gardens to the amphitheater. Shuttles will also be available this year and details about where to park will be included with your tickets.

The south service gate (adjacent to the DBG House parking lot) will also be open at the conclusion of each performance to speed your exit.

Children are always welcome. Adults must remember how fragile our gardens are and children should be made aware of this delicate environment. Enjoy strolls with your youngsters and let them share your appreciation of the beautiful surroundings.

continued on page 3

Fun-Filled Day for Members at Chatfield Arboretum

The development of Chatfield Arboretum has reached a new level. Prior to this year visitors have only been able to gain access to the arboretum through educational classes provided by Denver Botanic Gardens. As you read last month, tours are now being offered.

On July 10, 300 lucky DBG members can enjoy a Sunday evening at Chatfield Arboretum. This for-members-only introduction includes a variety of fun-filled activities.

Bring a blanket or folding chairs, a picnic supper, barbecue tools (if you plan to use the grill provided by Chatfield Arboretum), and enjoy a pleasant evening picnic. Lemonade, iced tea and cake will be provided. Beginning at 4 p.m. tours led by the new volunteer guides will take small groups through the newly developed trails and wetlands of the arboretum. Or you can introduce yourself to the arboretum and stroll the self-guided nature trails.

Chatfield Arboretum is a historical site in addition to being an important botanical location. It contains a pioneer homestead, the Hildebrand Farm established in the mid 1800's, which has been admitted to the National Register of Historic Places. It's also the perfect setting for the folk-dance group "Calico and Boots" to perform.

Members will be entertained by authentic styles of this dance group that include old West square dancing, two-steps, quadrilles, contra dances and waltzes with a little Appalachian clogging. All of their dance material has been carefully researched for authenticity that is supported by traditional music and costumes. "Calico and Boots" formed in 1946 when graduates of Lloyd Shaws Cheyenne Mountain Dancers brought their natural style to the University of Colorado in Boulder.

Registration is strictly limited. To ensure a spot for yourself and family (if members), return the reservation form on page 5 as soon as possible. Adults are $3.50 each, children (6 to 15) are $2.00 each and children 5 and under are free. Upon receipt of your reservation and check, a confirmation card will be mailed to you. This card will serve as your ticket and is to be turned in at the entrance to Chatfield Arboretum.

Chatfield Arboretum is located in the far southwest metro-community. Take C-470 west to the Wadsworth exit. Turn left and go beneath the underpass 0.4 miles to Deer Creek Road. Turn right and the Arboretum entrance is 0.4 miles on the left. The schoolhouse is 0.5 miles farther and you can park in the nearby lot.



The Dirty Dozen Brass Band opens the 1988 Garden Concert series.

Inside:

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Young Audiences Concert Schedule page 3

Annual Report page 4

Classes page 6



Kabuki face painting at the 1986 Children's Day at DBG

Extended Evening Hours at the Gardens are Very Special this Summer!

Leave the heat of the city, the hustle and bustle of downtown, retreat from the dry, dusty streets and "Escape to the Gardens" on Wednesday, Saturday and Sunday evenings. On these evenings, beginning Saturday, June 18, the Gardens will be open until dusk.

Members and non-members are encouraged to visit the Gardens during extended evening hours this summer. Four separate events have been scheduled for the "Escape to the Gardens" weeks. This includes 11 fun-filled nights. Amid the refreshing beauty of the gardens an array of activities is planned: entertainment coordinated to the week's theme, demonstrations, guided tours, picnicking, special guests and a whole lot more.

The "Escape to the Gardens" series will include special events during the following weeks:

June 18, 19: Featuring the Japanese Garden,
July 6, 9, 10: Family and Children's Week,
July 20, 23, 24: Featuring Xeriscape and Native Plants,
August 10, 13, 14: A World of Color.

June 18 and 19, the first week of the series, features our Japanese Garden, Shofu-en, Garden of the Pine Wind. Koichi Kawana, designer of the garden, will be available to answer questions. Kai Kawahara and Joann Narverud will give a demonstration on the "shaping of the pines" and the Tea House will be open with Kathryn Kawakami in traditional costume. Ikebana International will do a flower demonstration on Sunday evening in the Lobby Court and will also provide floral decorations.

We urge you to take some time and "Escape to the Gardens," bring a picnic and some friends, and enjoy the magic that comes to the Gardens in the evenings. Remember also that DBG will be open all Wednesday, Saturday and Sunday evenings beginning June 18 and ending September 4.

Look for more information on the remaining "Escape to the Gardens" events in your July newsletter.

Tributes

In memory of Betty Mitchell Barker
Boettcher Foundation
Mae B. Boettcher
Harry B. Combs, Jr.
Mr. & Mrs. John C. Mitchell, III
In memory of Kathryn King
Debra Hindin
In memory of John Mackenzie, Jr.
L. J. Todhunter, Jr.
In memory of Alfons Melin
Mr. & Mrs. Howard R. Helm
Jennie Marr
In memory of The Rev. James Moynihan
Mr. & Mrs. Herbert I. Jones
In memory of Jeannie Perrin
Wallace and Julie Pulliam
In memory of Kiyasha Stribling
Debra Hindin
In memory of William Timpte
Louise P. Weller

Tante Louise Celebrates 15th Anniversary with DBG

To celebrate their 15th anniversary, Tante Louise restaurant is sponsoring "Merci, Denver" with Denver Botanic Gardens, the Denver Zoo and the Denver Public Library.

During June, Tante Louise will do a special promotion for Denver Botanic Gardens. On June 18, the kick-off for extended evening hours, they will host a wine and cheese party at Denver Botanic Gardens from 6 to 8 p.m. Also, during the month of June, if members patronize Tante Louise for lunch or dinner, a donation of $1 per person per visit will be made to the Gardens.

This promotion has been planned by owner Corky Douglas as a means of returning something to the institutions that are a part of the city during the restaurant's 15th anniversary. We wish to thank him for including Denver Botanic Gardens.

Orientation Party for New Members on June 15

New members will have an opportunity to learn more about Denver Botanic Gardens on Wednesday evening, June 15. Explore the outside Gardens on this special evening and meet other new members. Return the reservation form that was mailed to you or call the Membership department, 331-4000, extension 22.

Green Thumb News
Number 88–6 June 1988

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 331-4000.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than May 20 for July, June 20 for August and July 20 for September.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 331-4000 for details.

Accredited by the American Association of Museums

Summer Concert Series Schedule

continued from page 1

Tickets will be sold on a first-come, first-served basis and they will go on sale Monday mornings. KCFR, Denver Botanic Gardens and Listenup Disc Connection in Boulder will sell tickets until the event is sold out, while all United Bank outlets will sell tickets on the first day of sales only.

Tickets are $5 each for members of either KCFR or Denver Botanic Gardens and $7 each for non-members with the exception of the July 21 and 22 concerts. Those tickets are priced at $8 for members and $10 for non-members. Children under the age of two are admitted free and all others require a ticket.

Unfortunately, tickets cannot be held at the Gardens for late arrivals nor can a list of names be kept at the gate. Rain dates have been scheduled for all concerts and, as such, there will be no refunds.

The Dirty Dozen Brass Band

Thursday, June 23 or Friday, June 24 at 7:30 p.m. (Rain date—Saturday, June 25 at 10 a.m.) Gates open at 6 p.m. *Tickets on sale starting Monday, June 6.*

A surprise kick-off to the 1988 Garden Concerts! The Dirty Dozen Brass Band will bring Mardi Gras to the gardens and dancing to the aisles. The eight-member New Orleans ensemble has been setting the traditional music of their city on its ear for the past decade and are long overdue for their Colorado premier.

Music from the Aspen Music Festival

Thursday, July 7 and Friday, July 8 at 7:30 p.m. (Rain date—Saturday, July 9 at 10 a.m.) Gates open at 6 p.m. *Tickets on sale starting Monday, June 27.*

This year brings two great evenings of music from Colorado's internationally recognized music festival. On Thursday evening it's brass with the American Brass Quintet and Friends. Always full of surprises, the American Brass Quintet is a legendary brass ensemble in North America. If strings are your forte, join us on Friday evening as the Guiness String Quartet joins forces with the Atlantic Quartet for a performance of Mendelssohn's Octet and other works. If you'd like, we'll waive the usual rules and gladly sell you tickets for both evenings.

Glasnost in the Gardens: The Paul Winter Consort and the Dimitri Pokrovsky Singers

Thursday, July 21 or Friday, July 22 at 7:30 p.m. (Rain date—Saturday, July 23 at 10 a.m.) Gates open at 6 p.m. *Tickets go on sale June 6 (same day as The Dirty Dozen Brass Band Tickets) and will be priced at $8 for members and $10 for non-members.*

The Cleo Parker Robinson Dance Ensemble

Thursday, August 4 or Friday, August 5 at 7:30 p.m. (Rain date—Sunday, August 7 at 10 a.m.) Gates open at 6 p.m. *Tickets on sale Monday, July 25.*

Joel Nascimento and The Brazilian Sextet

Thursday, August 18 at 7 p.m. (Rain date—Friday, August 19 at 7 p.m.) Gates open at 5:30 p.m. *Tickets on sale Monday, August 8.*

Santa Fe Chamber Music Festival Piano Quartet

Thursday, August 25 at 7 p.m. (Rain date—Friday, August 26 at 7 p.m.) Gates open at 5:30 p.m. *Tickets on sale Monday, August 8, the same day as the Joel Nascimento tickets. All remaining tickets will be available again at all locations on Monday, August 15.*

Ticket Outlets:

KCFR Studios, 2249 S. Josephine Street, Denver. Open from 7 a.m. to 5 p.m. the first day of sales and open 8 a.m. to 5 p.m. weekdays thereafter.

Denver Botanic Gardens Botanic House, 909 York Street, Denver. Open from 7 a.m. to 5 p.m. the first day of sales and 8 a.m. to 5 p.m. weekdays thereafter.

The United Bank of Denver, The Atrium at United Bank Center, 1740 Broadway, Denver. Open from 7 a.m. to 3 p.m. the first day of sales only.

The United Bank of Arvada, 7878 Wadsworth Blvd., Arvada. Tickets on sale at the Motorbank (just follow the signs as you drive in). Open from 7:30 a.m. to 3 p.m. the first day of sales only.

The United Bank of Littleton, 5601 S. Broadway, Littleton. Tickets on sale at the Motorbank (just follow the signs as you drive in). Open from 7:30 to 3 p.m. the first day of sales only. Tickets also on sale in Lobby after 9 a.m.

Listenup Disc Connection, 3216 Arapahoe in Boulder. Open from 10 a.m. to 8 p.m. weekdays, 10 a.m. to 6 p.m. Saturdays and noon to 5 p.m. Sundays.

Tune in to KCFR 90.1 FM on concert days for weather forecasts and announcements concerning the status of that evening's concert. Concert announcements will be made before and during KCFR's broadcast of "All Things Considered" on weekdays beginning at 4 p.m.

Young Audiences Concert Season

Load up the picnic basket and gather up the family for a summer celebration of song, dance and storytelling. The Young Audiences Concert season in the amphitheater at Denver Botanic Gardens is about to begin.

This popular concert series for children is presented to you by Young Audiences, Inc., in cooperation with the Gardens; Channel 9 KUSA-TV, media sponsor; and PACE Membership Warehouse, Inc., concert series sponsor.

For the convenience of all concert-goers, both the York Street and Cheesman Park gates of the Botanic Gardens will be open. Parking is encouraged in the designated spaces at Cheesman Park.

Tickets are $4 each, with children under 2 free. Call 825-3650 to purchase tickets with VISA, Mastercard or Choice. A $1 service charge will be added to each phone order.

One week prior to each concert date, tickets will also be sold at the Gardens Botanic House, 909 York Street. It is expected that few, if any, tickets will be on sale at the gate because of advance sales. To ensure your place please order now.

American Opera Abloom

Tuesday, June 28 at 6:30 p.m. (Rain date—Sunday, July 3 at 10 a.m.) Gates open at 5:45 p.m.

"American Opera Abloom" opens the Tuesday evening series on June 28. Hear highlights from the 1988 Central City Opera season. Expect bravura performances by the Festival Singers under the direction of Duaine Wolfe.

How the Zebra Got His Stripes and other African Tales

Tuesday, July 12 at 6:30 p.m. (Rain date—Sunday, July 17 at 10 a.m.) Gates open at 5:45 p.m.

On July 12 "How the Zebra Got His Stripes and Other African Tales" will be interpreted by Eulipions, an exciting Denver dance company. Four African folktales will come to life through authentic music, mime and dance.

Peter and the Wolf: Celebrity Edition

Tuesday, July 26 at 6:30 p.m. (Rain date—Sunday, July 31 at 10 a.m.) Gates open at 5:45 p.m.

The "stars," local dignitaries and celebrities, come out for the final concert on July 26. The Young Audiences orchestra and Kay Cassperson join them for this special retelling of the beloved children's story.



The Rocky Mountain Bonsai Society will host their annual Bonsai Exhibition on June 18-19.

Bonsai Exhibit at the Gardens June 18-19

The Rocky Mountain Bonsai Society's annual exhibition is slated for John C. Mitchell II Hall the weekend of June 18-19. This show is always well attended at the Gardens, an affirmation of the universal appeal that this Japanese horticultural art form holds for both experienced aficionados and the non-gardening public alike.

Bonsai exhibitions in Denver are renowned for the spectacular specimens of native junipers and pines collected (with permission) from Colorado mountains and canyons. These plants have achieved their special characters from their harsh environment, in which their crowns have been shaped by the wind and their roots have been trapped in rock, depriving them of water and nutrition. Some of the plants to be exhibited will be as old as 450 years. These ancient trees are a marvelous testimony to the tenacity and rugged beauty of life in our part of the natural world.

One break with tradition, according to Society president John Ragatz, will be the omission this year of a separate entrance fee to the exhibition. Only the regular non-member gate fees of Denver Botanic Gardens will be collected. These are $2.00 for children between 6 and 16 and for adults over 65, $4.00 for all other adults and no charge for children under 6.

Another innovation planned is an inexpensive raffle for several fine bonsai plants.

Hours of the show will be from 9:00 a.m. to 8:00 p.m. Saturday (extended for the Gardens' evening hours activities) and from 9:00 a.m. to 4:45 p.m. Sunday. For more information call Scott Peck, 698-2385.

A Timely Show and Sale of Iris on June 4 and 5

The annual Iris Show and Sale sponsored by Region 20 of the American Iris Society will be presented at the Gardens on the weekend of June 4 and 5. This is also when most of the Gardens' own spectacular collection of tall bearded iris will be in bloom so visitors will have an opportunity to enjoy an unusually splendid selection of these beautiful flowers.

Unlike many other perennials, bearded iris (the most commonly grown group in this large genus) should be planted in early summer. How timely it is, then, that the society will also be offering for sale divisions of many of the varieties that are on display. These will be freshly dug from collections grown in this region, ready for immediate planting in your garden.

The exhibition will include the latest introductions of commercial growers, flowers of the outstanding seedlings of local hybridizers, artistic floral arrangements and judged displays of dozens of different iris varieties.

The show will be held in John C. Mitchell II Hall from 1:00 to 4:45 p.m. Saturday and from 10:00 a.m. to 4:45 p.m. Sunday. For more information contact Regional Vice President Jess Quintana, 777-2452, or Show Chairman Dave Miller, 233-5561.

Fourth of July Splash of Watercolor at the Gardens

If you're not headed out into the traffic over Fourth of July holiday, the Gardens will be offering an interesting exhibition of water media art that you should visit. The Colorado Watercolor Society will host a show and sale in John C. Mitchell II Hall, July 1-4. It will include not only works in transparent watercolor but those in acrylic used as watercolor.

Subjects of the pieces, which will range from $100 to $1,000 in price, will include landscapes, still lifes and non-objective paintings. Specially for the Denver Botanic Gardens audience, many pictures will be mounted that will explore floral or natural themes.

Doors to the show will be open during the Gardens' regular hours, Friday, 9:00 a.m.-4:45 p.m., and, to accommodate the extension of the Gardens' hours those days, from 9:00 a.m.-8:00 p.m. on Saturday and Sunday. There will be no extra charge to enter the gallery area. For more information call either of the show's two co-chairmen, Dorothy Foster (758-8776) or Sara Michal (278-2961).

An Auction of Water Plants will be Held June 12

One of the nation's most active groups gardening with pool, marsh and waterside plants is the Colorado Water Garden Society. On Sunday, June 12, they will auction unusual aquatic and marginally aquatic plants at Denver Botanic Gardens.

Included in this sale will be waterlilies, water iris, lotus and other tropical and hardy plants that grow in or near the water. Plants offered will be of special interest to horticultural connoisseurs.

Location of the auction is in the Denver Botanic Gardens Botanic House, 909 York Street (York Street at Ninth Avenue). Patrons should park in the main parking lot between Josephine and York Streets.

Plants will be on view at 1:45 p.m. and the auction will start at 2:15. For more information, call Larry Latta at the Gardens, 331-4000.



The Colorado Water Garden Society will auction unusual aquatic plants on Sunday, June 12.

1987 Annual Report is Now Available

Extra Copies of the 1987 Annual Report have been printed especially for members who would like a copy. To request one, please write to the Membership Secretary at Denver Botanic Gardens, 909 York Street, Denver, Colorado 80206. Respond by June 15 in order to receive your copy.

1988 Terrace and Garden Tour Visits Ken Caryl Ranch

The Terrace and Garden Tour is an annual benefit provided for DBG by the Denver Botanic Gardens Guild. On Saturday, July 23, from 9 a.m. to 5 p.m., the Guild will sponsor a tour of gardens in Ken Caryl Ranch, a community southwest of Denver and northwest of Chatfield Dam.

Included in the price of the tour tickets this year will be admittance to DBG's developing Chatfield Arboretum, which is not yet open to the public. This opportunity to visit the Arboretum will only be available the day of the tour.

Tickets will be available, for the first time, by mail this year. To ensure delivery of these tickets, requests must be received no later than July 15. Otherwise, they can be purchased in July from DBG Guild members and in the Gift Shop at the Gardens, or on the day of the tour at the various homes on the Terrace and Garden Tour. To receive your tickets by mail complete the adjacent form and mail it to:

Mrs. George Canon
The Denver Botanic Gardens Guild
909 York Street
Denver, CO 80206

1988 Terrace and Garden Tour Ticket Request Form

Enclosed is a check for $_____.

Please send me:

_____ adult tickets at $8 each _____

_____ children's tickets (5-12 year olds) at $4 each, children under 5 free _____

Total $_____

Send tickets to:

Name _____

Address _____

City _____ State _____ Zip _____

Daytime phone _____

Make checks payable to Denver Botanic Gardens Guild
All proceeds from the tour go to support Denver Botanic Gardens.

Members' Day at Chatfield Arboretum

Sunday, July 10
4-8 p.m.

Enjoy

Nature trail for hiking
Guided Tours
Entertainment by Calico and Boots
Lemonade, iced tea and cake



Chatfield Arboretum Schoolhouse

Please bring

Picnic supper
Barbecue tools (if using the grill)
Folding chairs or a blanket
(No pets allowed.)

Please see announcement page 1.

Members' Day at Chatfield Arboretum Reservation Form

This is a members-only introduction to Chatfield Arboretum and is limited to the first 300 to respond. Reservations are for _____ adults at $3.50 each, _____ children (6-15 years old) at $2 each and _____ children 5 and under are free. Enclosed is a check for $_____.

Name _____

Address _____

City _____ State _____ Zip _____

Daytime Phone Number _____

Mail reservation by July 5 to: Members' Day at Chatfield Arboretum
Denver Botanic Gardens
909 York Street
Denver, CO 80206

You will receive a card confirming your reservation and it is to be turned in at the entrance to Chatfield Arboretum.

CLASSES

Summer
1988
Denver Botanic Gardens

Wildflower Foray to Means Meadow, Evergreen

Sunday, June 12
10 a.m. to 3 p.m.

Learn about the wildflowers and ecology of the montane zone. This is an easy hike through ponderosa pine woodlands and Douglas fir communities with their associated shrubs (bearberry, blueberry and currant) in the lower montane zone. See spring in its full glory with blooming puccoon, yellow stonecrop, Western wallflower, skullcap, sugar bowls and many others.

Bring a lunch and hand lens and plant identification books, if you have them.

Meet: promptly at 10 a.m. at the northeast parking lot at Rock Cut (I-70, exit 259).

Leader: Paul Kilburn

Fee: $5 members/$5.50 non-members

Plant Life Field Trip: Mount Falcon Park, Jefferson County

Wednesday, June 15
9 a.m. to 4 p.m.

Mount Falcon Park is located just outside Morrison, Colorado, on Indian Hills Road (Parmalee Gulch Road). Numerous trails lead to scenic vistas and the early summer wildflowers here are especially plentiful.

Larkspurs, blue mist penstemons and orange meadow arnicas are all expected to be blooming in profusion. Bring a sack lunch.

Leader: Peter Root is an amateur botanist who volunteers regularly at the Kathryn Kalmbach Herbarium at DBG. He is also a volunteer naturalist at Roxborough State Park.

Meet: promptly at 9 a.m. in the main DBG parking lot to carpool and receive directions. Participants will share gasoline expenses.

Fee: $2 per person

Limit: 20

More Ecology and Flora of North Table Mountain

Sunday, June 19
10 a.m. to 3 p.m.

This is a field foray to examine the native biology as well as man's use of this lava-capped mountain, rising 1,000 feet above the plains, and located northeast of Golden just 15 miles from Denver.

Explore this natural history gem with its wide variety of grassland and shrub communities, geology and wildlife. See mountain mahogany, snowberry, skunkbush, chokecherry, mountain maple, lichens and the



abundant early summer wildflowers of the foothills.

Meet: promptly at 10 a.m. 1.8 miles north of Highway 58 (Golden) on Highway 93 at the gravel road on the east side of Highway 93 (by small cottage).

Instructor: Dr. Paul Kilburn, Ph.D.

Fee: $5 members/$5.50 non-members

Field Trip to Golden Gate Canyon State Park

Sunday, June 26
10 a.m. to 3 p.m.

This park probably contains the best array of foothills' wildflowers in the Denver vicinity. Many flowers such as shooting stars, larkspurs and anemones will be blooming.

Join us on a leisurely walk in the Old Barn Knoll area and brush up on your identification skills. Don't forget your picnic lunch.

Leader: Dick Schwendinger has been leading field trips throughout North America and Alaska for over 25 years.

Meet: promptly at 10 a.m. at the park's Nature Center. (Call the Education department at 331-4000, extension 20, if you need directions).

Fee: $4.50 members/$5 non-members
Each car entering the park must purchase a daily user pass in addition to the field trip fee.

Tundra Trip to Corona Pass

Saturday, July 23
9 a.m. to 4 p.m.

Visit one of the most spectacular passes in the Front Range. Observe tundra ecology and many different wildflowers as well as man's influences. Follow the abandoned railroad to the hotel on top, look at ancient Indian game drive fences and see gas pipeline revegetation in this high altitude environment.

The abundant wildflowers found here include paintbrushes, early gentians, miniature clovers, alpine avens and snow buttercups.

Don't forget your lunch and rain gear; bring a hand lens and plant books if you have them.

Instructor: Paul Kilburn, Ph.D.

Meet: promptly at 9 a.m. at the northeast parking lot of the Rock Cut (I-70 at Exit 259).

Fee: $5 members/$5.50 non-members

Limit: 18

Field Trip to Rocky Mountain National Park

Saturday, July 9
10 a.m. to 3 p.m.

Explore the rich woods surrounding two of the prettiest, most accessible lakes in the park. Participants will see various members of the heath family such as pyrolas and wintergreens that are at home in the moist areas of the subalpine forests.

The leader is especially fond of the wild orchids, and, with luck, the group should find several of these, including the elusive little purple lady's slipper, *Cypripedium fasciculatum*.

Don't forget your lunch.

Leader: Dick Schwendinger

Meet: promptly at 10 a.m. at the Moraine Park Visitor Center. Please call the Education department at 331-4000, extension 20, if you need directions. Each car entering the park must purchase a daily user pass in addition to the field trip fee.

Fee: $5 members/$5.50 non-members

Limit: 15

Photography and Botanical Illustration Field Trip

Wednesday, June 29
8:30 a.m. to 4 p.m.

This is a field trip to the historic Evans Ranch, near Evergreen, for students of photography or botanical illustration. Established in 1868, this 3,200-acre ranch has a spectacular view of Mount Evans and a lush collection of mountain wildflowers. Beginners to experts are all welcome.

Wear sturdy walking shoes and remember to bring rain gear, a sack lunch, drinking water and your own drawing materials or photography equipment.

Suggested photographic equipment consists of: Kodachrome film (ASA 25 or 64), tripod and macro-lens or three-ring lenses. Suggested drawing materials are: drawing pad and pencils, magnifying glass and watercolors or colored pencils.

Meet: promptly at 8:30 a.m. in the main DBG parking lot to carpool.

Instructors: Bob Heapes is an experienced field trip leader, nature photographer and popular lecturer. Angela Overy received her National Diploma of Design and designed in London, New York and San Francisco before settling in Denver.

Fee: $8 members/$9 non-members

Limit: 15 photographers and 15 illustrators. Please identify on the registration form which category you are most interested in.

Mushroom Identification

(two sessions) Classroom C
Saturdays, June 4, 11
8:30 a.m. to 12:30 p.m. and optional field trip from 1:30 to 3:30 p.m.

This course will present mushroom identification for beginners and will provide a base for those who may wish to pursue the subject in more depth in the future.

Spring-fruiting mushrooms of the city as well as the summer fruiting species of the high country will be covered.

Two slide-lecture sessions cover structure, growth, habitat, seasonality, toxicity and edibility of mushrooms. The use of field guides and keys will be demonstrated and recommendations will be given on those most useful in our area. Recommended field guides will be available for purchase.

Handouts will be distributed but students should be prepared to take additional notes. Participants will learn to positively identify more than 20 common edible, non-edible and poisonous mushrooms in addition to helpful collecting, cleaning, preparation and cooking hints.

An optional field trip to areas near the Gardens will be scheduled in the afternoon of each session.

Instructor: Marilyn Shaw lectures and teaches extensively and has been active in the Colorado Mycological Society for 15 years. Ms. Shaw is a consultant in mushroom identification for DBG and the Rocky Mountain Poison Center.

Fee: $50 members/$55 non-members

Design for the Urban Garden

(two sessions) 9:30 a.m. to noon
Friday, July 29 and Saturday, July 30

Tour a handful of city gardens of stunning beauty whose owners have coaxed horticultural wonders from barren lots. These range from an intimate courtyard to a rambling cottage garden, and will excite novice and experienced "green thumbs."

Dealing with shade, clay and other challenges, these gardens present possibilities for even (seemingly) hopeless sites. The focus will be on creating a personal and colorful garden with common and unusual perennials, shrubs, bulbs, herbs and annuals.

You'll want to bring a notebook and possibly a camera.

Meet: Promptly at 9:30 a.m. at the main entrance to the Gardens to receive directions and carpool.

Instructor: Rob Proctor combines art and gardening in an interesting way. His award-winning urban garden is the inspiration for his botanical drawings. An internationally known watercolorist, Mr. Proctor is an art instructor at DBG and his work is currently exhibited at the Smithsonian Institution. His skills are in demand as a perennial garden consultant.

Fee: $20 members/$22 non-members

Limit: 12

Perennial Pleasures

(five sessions)
Tuesdays, August 2, 9, 16, 23, 30
7 to 9 p.m. Classroom C

With proper planning and planting, perennials can enhance any garden with long-term beauty and reduced maintenance. Discover the pleasures of perennial gardening in this five-session course that covers garden design, soil preparation and cultivation as well as a multitude of suggested plants.

Perennials for specialized situations such as shady areas will also be discussed. There will be ample opportunity for questions.

Instructor: Andrew Pierce is a horticulturist and is Assistant Director of DBG. He is an accomplished grower of perennials and alpine plants.

Fee: $40 members/$44 non-members



Botanist-Horticulturist Gayle Weinstein discusses the Xeriscape Garden with DBG tour guides.



Dwarf carnation by botanical illustration student Shari Jones

Watercolor Painting

(five sessions)
Wednesdays, June 1, 8, 15, 22, 29
9:30 a.m. to noon
DBG's Morrison Center

Explore the sparkle and delicacy of watercolor painting while enjoying the natural setting of Denver Botanic Gardens. This course will cover the basic materials and techniques of watercolors with emphasis on the freedom of personal expression.

Come prepared with supplies. You'll need: a 1½-inch flat brush, a #10 round brush, watercolor paper, tissues, container for water, plastic palette and cake or tube watercolors.

Instructor: Lynette Swanson-O'Kane is a graduate of the Philadelphia College of Art and a professional artist with national representation of her work.

Fee: $50 members/$55 non-members

More Lessons in Ikebana

(four sessions) **10 a.m. to noon**
Saturdays, June 4, 11, 18, 25
DBG's Morrison Center

This course is for students who have had some previous instruction in ikebana and will include an introduction to nageire.

Please bring the following materials to class: a round or rectangular ceramic flower container (no smaller than 12 inches long and two inches deep), two needlepoint flower holders (one that is two inches wide and one that is three inches wide or larger), sharp clippers, small bucket (or other container to hold flowers and water), a tall (ten inches or more) container for nageire and a notebook.

Instructor: Joan Wooldridge

Fee: $44 members/$47 non-members (includes $12 for flowers)

Limit: 12

Japanese Tea Ceremony

Section V: **Sunday, June 12**
Section VI: **Sunday, June 26**
Section VII: **Sunday, July 10**
Section VIII: **Saturday, July 23**

(one session) 2 to 3 p.m.
Tea House in DBG's Japanese Garden

Please indicate your section on the registration form.

Because of its emphasis on such concepts as harmony, respect, purity, tranquility and elegant simplicity, the tea ceremony has for centuries been considered the epitome of Japanese life. This is an opportunity to experience an authentic tea ceremony in the quiet splendor of our Japanese Garden.

Instructor: Kathryn Kawakami has done much to inform Denver area residents and students about the culture of Japan. She will be assisted by William Crowder who studied the tea ceremony in Japan at Ura Senke.

Fee: $4.50 members/$5 non-members

Limit: 15

Arranging Lessons with Fresh Flowers

(four sessions)
Mondays, July 11, 18, 25, Aug. 1
9 a.m. to noon **Classroom B**

Summer is the perfect time to learn how to make floral arrangements that will complement a favorite spot in your home. Students will learn how to select and cut fresh flowers for arrangements that will be prepared in class.

Please bring two containers (no glass or silver), clippers, scissors or knife, a large bucket for gathering flowers and two needle-point flower holders (available in the DBG Gift Shop). All other materials, including flowers, will be provided.

Instructor: Avalonne Kosanke is a master flower judge for the National Council of State Garden Clubs and has over 25 years of teaching experience.

Fee: $53 members/$58 non-members (includes a $5 materials fee).

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206

Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 331-4000.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes_____

Name_____

Address_____

City_____ State_____ Zip_____

Daytime Phone_____ Evening Phone_____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

L I B R A R Y

L I N E S

Helen Fowler Library
Volume 11, No. 3
June 1988

Librarian:
Solange
Gignac

Perfect Plant, Perfect Garden: The 200 Most Rewarding Plants for Every Garden

By Anne Scott-James. Summit Books, 1230 Avenue of the Americas, NY, NY 10080, 1988. $24.95. SB453 S4 1988.

What, you might ask, does an Englishwoman gardening in London and the Downs have to offer her Rocky Mountain counterpart? Plenty, in this lavishly illustrated and highly readable selection of personal favorites. The English climate approaches our own in capriciousness, droughts and water shortages, and the last few winters have certainly tested the hardiness of most garden plants.



The book is organized by garden type, including everything from "The Moist Shady Garden" to "The Dry Sunny Garden." Although the latter is clearly not the favorite of Ms. Scott-James, the plants insufficiently romantic for her tastes, she provides many useful suggestions: Group these plants together as the dry garden has a harmony of its own; use Mediterranean plants that go dormant in the winter; and apply compost and mulch liberally. She calls mahonias an "acquired taste" but admits to having succumbed to the charms of *M. japonica*.

She includes many of our standbys such as campanulas, crucifers, hardy geraniums, alliums, succulents and herbs, but also a few tempting surprises. Her descriptions are laced with literary allusions, historical notes and personal recollections. Although she rarely includes plant families or precise hardiness notes, this book is nevertheless inspiring — read it with a catalog in hand.

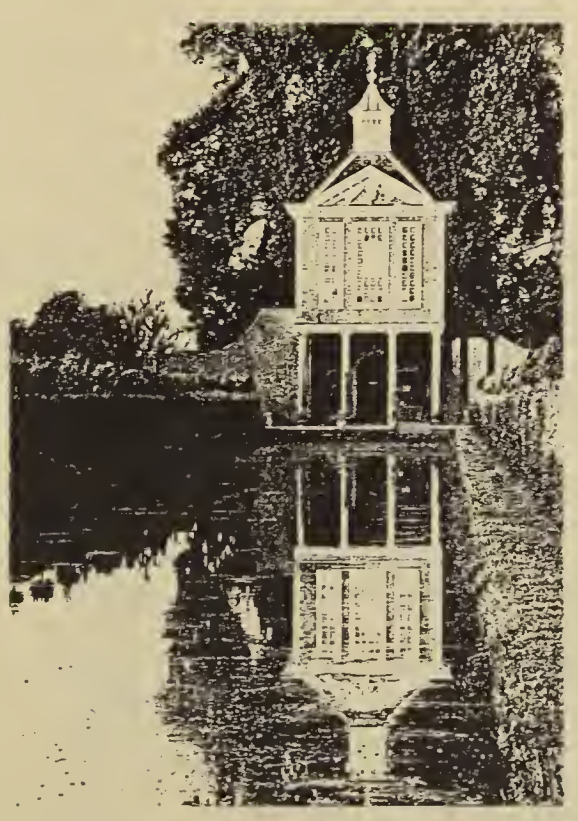
Alcinda Cundiff

English Water Gardens

By Guy Cooper, Gordon Taylor and Clive Boursnell. Little, Brown and Company, 34 Beacon Street, Boston, Mass. 02108, 1987. $24.95. SB 466 G8C78 1987.

Seeing is believing. Dozens of color photographs portray the nature and importance of water gardening in England. Waterfalls, cascades, sculptures, canals and fountains dominate scenes in parks and around stately mansions. Quaint bridges are another important feature used in many English water gardens.

Several stunning pictures are a testimony to the success of cultivating hardy water lilies in England. One especially effective photograph (page 86) displays a red water lily resting softly on the water surface and reflecting nicely among a multitude of glittering leaves. A collection of beautiful photographs also presents scenes of stunning reflections.



Hardy bog plants are used extensively in the English water garden. *Lythrum salicaria* (purple loosestrife), *Iris pseudacorus* (yellow flag iris), *I. kaempferi* (Japanese iris) and *Pontederia cordata* (pickerel weed) are examples of bog plants incorporated into the English gardens the American water gardener will recognize.

A bibliography lists additional readings for the inquisitive water gardener.

Joseph V. Tomocik

Ponds and Water Gardens

By Bill Heritage. Second revised edition. Blandford, 1986. Distributed by Sterling Publishing Co., Inc., 2 Park Avenue, NY, NY 10016. $8.95. SB 423 H474 1986.

In this revised second edition of *Ponds and Water Gardens,* renowned water gardens specialist Bill Heritage of Enfield, Middlesex, England, discusses the basics of water gardening including pool design and construction, fountains and waterfalls, plants, livestock (fish), pond management and maintenance.

Mr. Heritage's valuable guide to hardy water lily selection includes information on color, planting depth

continued on page 10

THE REVIEWERS:

Alcinda Cundiff— Research Associate, Dept. of EPO Biology, University of Colorado, Boulder

Lynn Thompson— Former DBG Community Gardens Coordinator

Joseph V. Tomocik— Gardener-Florist II, DBG

O.L. Olie Webb— Environmental Consultant

continued from page 9

and surface coverage. He recommends that the tiny, yellow *Nymphaea pygmaea helvola* should have no more than nine inches of water over the crown. The changeable *N.* 'Comanche' should have from seven to 15 inches of water over the crown.

Described in this valuable handbook are 40 tropical water lilies. In the list of marginal plants are some favorites featured annually in DBG's Aquatic Plant Display. This includes *Pontederia cordata* (pickerel weed), *Scirpus albescens* (white bullrush) and *Typha minima* (dwarf cattail).



In the section on pond maintenance, Mr. Heritage points out that nine times out of 10 discolored water should not be alarming. Plants and patience are the answer to green water. Milky, clouded water may necessitate changing the water and removing some decaying organic matter.

Found in the center of the book are 48 pages of color photographs that reflect the excitement of water gardening. Included are hardy water lilies displayed each summer as part of the marliac display at the Gardens. 'Marliac Carnea', 'Chromatella', 'Attraction' and 'Gloriosa' are some examples.

Joseph V. Tomocik

Woody Plants of the Southwest

By Samuel H. Lamb. The Sunstone Press, P.O. Box 2321, Santa Fe, NM 87501, 1975. $12.95. QK 142 L5 1975.

While this is not a new book it deserves recognition as one of the best available guides to trees and shrubby vegetation in the southwestern states.

Samuel Lamb was a professional forester and was trained in wildlife management. He served as a park naturalist with the National Park Service in Hawaii, served as a wildlife refuge manager, and became assistant director to the New Mexico Department of Game and Fish. His extensive collection of wood specimens was displayed at Colorado State University Department of Forestry for many years.

This current work is an expansion of his earlier *Woody Plants of New Mexico,* published by the New Mexico Department of Game and Fish in 1971.

Anyone who has traveled the long lonely stretches of U.S. Interstate Highways 75, 10, 15, 70, 8, 20, 17 and 19 at 60 mph or more has no realization of the wealth of variety and beauty found in the vast stretches of the shrubby desert. It's only when you take a side trip on state or county roads that a place to pull off will be found where you can examine the flora at leisure. This is where Mr. Lamb's book becomes essential.

The desert and semi-desert Southwest includes an astonishing population of shrubby plants, far outnumbering their tree relatives. Many are relics of the Pleistocene Age that have become adapted to a much dryer climate. Some have emigrated from the Mexican Plateau following the glacial retreat. The mixture is further complicated by diversity resulting from isolation on mountain ranges surrounded by desert, or adaptation to particular soil types or to arid situations that have occurred which their ancestors could never tolerate. Anyone who has witnessed a "desert bloom" knows just how diversified this flora is.

As examples of the desert diversity, the book lists five species of ash trees, 11 of oak, six of mimosa, five of mesquite, six of mountain mahogany, nine of sumac and 17 genera from the rose family.

Lamb's book covers western Texas, New Mexico, southern Colorado, Utah and Nevada, Arizona, southeastern California and northern Mexico. Some 225 distribution maps serve well to delineate the range of species.

The illustrations include excellent line drawings for most species and varieties. The photographs, like nearly all photographs of trees and shrubs in texts, don't really contribute much except a feeling of the relative size and growth habit of the tree or shrub. Perhaps that's all that was intended.

The descriptive texts are brief and include both the scientific name as well as the vernacular, and where known, the Indian or Spanish names.

This book is not as detailed as Lyman Benson's and Robert Darrow's *The Trees and Shrubs of the Southwestern Deserts* printed in 1981, but that reference is hardly portable for field identification! While its size, 8.5 by 11 inches, may be somewhat clumsy for backpackers, I'll always find a place in my luggage for my copy when I'm headed southwest!

This book is indispensible for anyone traveling southern Colorado as well as the rest of the Southwestern states and northern Mexico.

O.L. Olie Webb

The Principles of Gardening

By Hugh Johnson. Simon and Schuster, New York, 1987. $17.95. SB 453 J68 1987

The author perceives gardeners as artists and gardens as their canvases and sculpture, molded not only by one's hands and mind but also by the uncontrollable forces of nature. By successfully capturing the emotion and the beauty interwoven with scientific and artistic forces, readers are presented with a text that embodies what many feel is the essence of gardening.

Each garden characteristic is reviewed as its own entity such as statues, screens, paths, herbs, fruits, grasses, alpines and aquatics to name a few. A generous number of photos accompanies each section, representing unique and inspirational options for incorporating each facet into the overall garden.

A refreshing look at elements of gardens and gardening is taken by the author as he leads the reader through historical influences of the formal, straight-edged, architectural gardens of the Egyptians and the contrastingly different naturalistic, informal gardens of the Chinese, or today's garden designs. The origins of many components of style reflected in today's gardens are found through their French, Dutch, Italian, English and Japanese backgrounds.

The book stands alone among many general gardening books not merely for its artistic and inspirational attitude towards gardening, but more so for the quality of its written word. As a writer by vocation, Hugh Johnson has the ability to educate while entertaining the reader. Each section informs the readers without burdening them with unnecessary and lengthy explanations.

Lynn Thompson

Gardening Tips for June

If you've decided to landscape with plants suitable for our High Plains/ Foothills soils and environment, plants which use relatively little water, certain general considerations from more traditional landscaping apply. This month we'll entertain some of the most basic of these, with attention to the most common dilemma for new gardeners, "How do I know what I want?"

Why are we thinking about planting new plants or changing our landscaping this time of year when everyone "knows" that spring is the time to plant? Frankly, this practice is a holdover from the days when the only nursery stock available was bareroot. That is, the trees and shrubs were dug in late winter or early spring before they had leafed out, while they were in an apparently dormant state. Immediate planting was obligatory to prevent their death through desiccation because, in a nearly rootless state, plants are unable to replace the water being lost through their bark. Any plant in full leaf, as it would be later in the spring or in the summer, is in even greater danger. It will succumb almost immediately if handled bareroot.

However, most nursery stock today is handled in one of three ways: It has been grown in the container in which it is eventually sold and, therefore, retains its complete root system. It has been dug and subsequently grown in containers the year before sale in order to regrow a new system of roots, and is, therefore, known as an "established" containerized plant. Or it has recently been dug with sufficient soil intact around the roots, wrapped in burlap, to tide the plant over a short time until planting. This latter technique is known as "balling and burlapping." Any plant treated to one of these three methods may be purchased and planted any time during the year except when the ground is frozen, when the soil is too wet or when water is unavailable for watering the plant well after planting.

However, landscaping does not begin with the planting of plants. It starts with the harvesting and nurturing of ideas. For several reasons June is a suitable month to begin this process.

At this time of year most plants are up; they're visible. You can inventory them, appraise their virtues and decide what to keep, either in place or elsewhere in the yard. In so doing, keep in mind their known requirements for maintenance and water.

Plant selection involves more than just aesthetics, however. First, take time to get to know your site. This activity can be as detailed or as casual as you wish, within limitations. At the minimum, take a slow but purposeful stroll around your grounds, refreshing summer drink in hand, and make a mental note of the visual surroundings. Which views do you wish to preserve? Which eyesores (yours and those of your neighbors) do you need to screen? Allow yourself to dream a bit, but keep your thoughts on the task at hand. Is there a slope to the land? In which direction? Which part of the property would lend itself best to private enjoyment, and which should be public? These are some of the questions that you should attempt to answer.

Turn a deep shovel full of earth here and there to get an understanding of what type of soil lies below the surface. A more methodical approach to this evaluation would include sending soil samples for testing to a qualified laboratory. It may also involve, at some stage, consulting a professional in landscape design.

Only after you understand your site and what you'd like to do with it should you think of the plants you'll need to achieve your objective.

Making your decisions on plant material is basically an educational process. As such, it too is an activity that lends itself to pleasant pursuit this time of year. During the growing season you may easily find and identify mature examples elsewhere of plants you do not have, but wish to consider. Many older neighborhoods, parks and cemeteries in the metropolitan area offer a satisfying range of traditional plants. If you are serious, though, about installing plants that use less water, which will demand less of your time and attention in the future and which convey the spirit of our Western environmental heritage, look elsewhere.

The best location for this type of plant exploration is here at the Gardens, where hundreds of attractive plant species are displayed. Importantly, they are also identified.

Of course, your investigation of suitable plant material should also lead you (without your shovel) into the nearby foothills, to the mesas and canyons of both the Eastern and Western Slopes of the state and through the non-cultivated, out-of-the-way parts of the plains to the east. If you keep in mind the soil you left at home and the landscaping solutions you seek, and if you are observant of the growing conditions in which you find wild-growing plants, such trips are valuable in formulating ideas for a domestic landscape. It need not be a "native" landscape, nor a wild one. Many of the plants you fall in love with can be tamed; some already have been.

Finally, to find those suitable plants that have been domesticated, begin looking over the local nurseries that sell the type of plant material you need. Ask them for the specific species or varieties you've decided upon. Your nursery dealer may not have your plants in stock — this year. If your choices were made with forethought and reasonable knowledge of both your needs and the cultural needs of the plants, don't accept easily offered substitutions. It's the truth: Retailers sell what the customers will buy.

Fortunately, several wholesale growers as well as retailers in this area are well attuned to the need for more suitable domestic plants for this area. Whether you've chosen to renew or plant from scratch, you should be able to find sufficient material to make a satisfying improvement in your yard — and the horticultural face of the region — this year.

Larry Latta
Botanist-Horticulturist
Denver Botanic Gardens



CALENDAR

JUN

S	M	T	W	T	F	S
	**First meeting of a class with more than one session*		1 Watercolor Painting*	2	3	4 Mushroom ID*, More Lessons in Ikebana*, Iris Society Show and Sale
5 Iris Society Show and Sale	6	7 Learn to Draw Colorado Wildflowers*	8	9	10	11
12 Aquatic Plant Auction; Wildflower Foray to Means Meadow, Evergreen	13	14	15 New Members' Orientation, Plant Life Field Trip	16	17	18 "Escape to the Gardens," Bonsai Society Exhibition
19 "Escape to the Gardens," Bonsai Society Exhibition	20	21	22 "Escape to the Gardens"	23 Dirty Dozen Brass Band	24 Dirty Dozen Brass Band	25 "Escape to the Gardens"
26 Photography & Botanical Illustration Field Trip, Tea Ceremony	27	28 Young Audiences Concert	29 "Escape to the Gardens"	30		

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at Denver Botanic Gardens. Here is a listing of those groups and a ***general*** *indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 331-4000.*

African Violet Society, *4th Thurs. of 7 months;* ***Bonsai Society,*** *1st & 3rd Tues.;* ***Cactus & Succulent Society,*** *2nd Tues.;* ***Civic Garden Club,*** *1st Fri.;* ***Colorado Native Plant Society,*** *4th Wed.;* ***Gloxinia Gesneriad Growers,*** *1st Sat.;* ***Hemerocallis Society,*** *3rd Sun. of 4 months;* ***Ikebana International,*** *4th Fri.;* ***Iris Society,*** *spring & fall dates;* ***Men's Garden Club,*** *4th Thurs.;* ***Mycological Society,*** *2nd Mon.;* ***Rock Garden Society,*** *3rd Wed.;* ***Rose Society,*** *2nd Thurs.;* ***Ultra Violet Club,*** *4th Mon.;* ***Water Garden Society,*** *2nd Sun. of 5 months.*

Coming Next Month

July 1-4
Watercolor Society Show and Sale

July 7 & 8
Music from the Aspen Festival

July 6, 9 & 10
"Escape to the Gardens"

July 9
Iris Society Sale, Field Trip to Rocky Mountain National Park

July 10
Members' Day at Chatfield Arboretum

July 12
Young Audiences Concert

July 17
Daylily Show

July 20, 23, 24
"Escape to the Gardens"

July 21 & 22
Glasnost in the Gardens

July 23
Terrace & Garden Tour, Tundra Trip to Corona Pass, Tea Ceremony

July 23 & 24
Gloxinia Gesneriad Show

July 26
Young Audiences Concert

Denver Botanic Gardens, Inc.
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June 1988

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Green Thumb

NEWS

Denver Botanic Gardens

July 1988

Number 88–7

The 1988 Terrace and Garden Tour

Each year the Denver Botanic Gardens Guild presents a tour of attractive terraces and gardens in the Denver area. This year's tour visits new gardens in a relatively new region.

The 1988 Terrace and Garden Tour focuses on some unusual and especially attractive front entrances on Saturday, July 23, from 9 a.m. to 5:30 p.m. Featured will be gardens in the Ken Caryl Ranch area, plus an added attraction. Ticket holders will be given a tour of the nearby Chatfield Arboretum.

Gardens have been selected from each area of Ken Caryl Ranch, including beautiful Ken Caryl Valley. Two of the gardens are near the Ranch House. One displays an imaginative use of terracing on a difficult corner lot; the other features a rockery outlining the front lawn, a bank planting off the main terrace and a small bog area receiving a special treatment.



In the next area are two large homes in Manor Ridge. One has a small aspen grove, interplanted with low shrubs of potentilla, barberry and horizontal juniper, that gives delightful shade to a large sunroom during the summer months, while allowing the winter sun to warm the interior. Perched on a hill, it has a spectacular view of the hogbacks and the nature trails surrounding the complex. The other garden in this area has a lovely flagstone wall that follows a walk down to a flagstone deck, where colorful annuals surround red maples in planters. For the children they have designed a large playground in the back.

The last area is near the old Manor House and the ruins of Bradford House, which was a hotel (now designated a historic site) for travelers about to cross the Continental Divide. Here three lovely gardens can all be viewed with one stop of the car. The first has a fabulous entry, using patterned brick-red concrete that bridges a dry river bed and is beautifully planted to catch the light of the morning and evening sun. The next house has delightful stone steps winding up to a fountain, which cascades over a flat slate slab into a small pool. This garden has an enviable variety of plantings that you can enjoy while munching on complimentary homemade cookies and herbal iced tea. The third home at this stop has a little stream splashing down over rocks from the terrace of a small pond below. The owners have strived for an English wildflower feeling in their garden.

Farther along the road, there is one more stop. Two houses next to each

continued on page 5

See attractive homes and entranceways complemented by carefully chosen plant materials on the 1988 Terrace and Garden Tour.

Inside:

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Summer Garden Concert Schedule page 3

Young Audiences Concert Schedule page 4

Map for Chatfield Arboretum page 6

Classes page 8



Melanie Grant presents a check for $12,000 to Ed Connors, former president of the DBG Board of Trustees. This check represents the proceeds from the Ice House benefit held in November, 1987.

The Garden Club of Denver has been very supportive of the development of the Gardens. Funding from the club built the Home Demonstration Garden, which the members still maintain. Funds for the new sign in this garden were also provided by the Garden Club of Denver.

Extended Evening Hours

The new "Escape to the Gardens" series opened our Summer Extended Evening Hours program last month. The gardens will be open until dusk on Wednesday, Saturday and Sunday evenings through September 4.

During July the "Escape to the Gardens" series has two weeks of special activities planned.

July 6,9,10: Family and Children's Week
July 20,23,24: Xeriscape and Native Plants Week

Pack a picnic, grab a blanket, round up the family and "Escape to the Gardens" for the fun of Family and Children's Week, July 6, 9 and 10. The gardens will be festive and colorful, with the daylilies nearing their peak, the vegetables beginning to bear fruit and the Mexican Courtyard (the sunken garden adjacent to John C. Mitchell II Hall) a blaze of color. This festive and colorful theme will be enhanced for the children with balloons, clowns and a treasure hunt that has been designed specially for them and will end with the first 50 children receiving a 'Garfield' marigold. Don't forget your camera as this would be a perfect opportunity to take a family photograph.

Then on July 20, 23 and 24, learn about how you can conserve water and still have a beautiful garden. You can even imagine yourself crossing the plains in a covered wagon when the "Escape to the Gardens" series features xeriscape and native plants. Enjoy a participatory educational evening, with members of the Denver Chapter of the Native Plants Society available to answer questions, point out interesting plants and provide useful information as you explore both the Xeriscape and Plains gardens.

Be sure and watch your papers and listen for our ads on KVOD for the many more exciting activities we are planning for you.

Bring your families, neighbors and friends and "Escape to the Gardens" in the cool of the evening.

All "Escape to the Gardens" activities will begin at 5:30 p.m. on the designated nights. Admission will be free for members and non-members will be charged the regular gate fee.

Tributes

In memory of William H. Anderson, Jr.
Mr. & Mrs. Richard M. Millard
In memory of Mrs. Mary Dufford
Mr. & Mrs. Robert E. Ferguson
In memory of Mrs. Billie Sue Gale
Ned Andrews
Helen & Tim Atkeson
David Becker
Ruth Cornfeld
Sharon Caulfield
Barbara & Paul Catalano
Bob & Josette Montgomery
Karen Zulauf
In memory of Jane Liston Hawkins
Connie Auran
Joanne Brewer
Grace Linn
Joyce Moore
June & Bud Plappert
Hank Rael
Hugh H. Rohrer, M.D.
The Sunshine Club
Chris Wiant
In memory of Alfons Melin
Malcolm & Neomi Hilton
Lodge Enighet No. 178
In memory of Mark Nagel
E. Sydney Glick
In memory of Herbert Pierce
Margaret Wallace

Green Thumb News
Number 88–7 July 1988

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 331-4000.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than June 20 for August, July 20 for September and August 19 for October.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 331-4000 for details.

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Summer Concerts Continue Through August



The 1988 Garden Concert Season proceeds into July and August after an exciting opening with The Dirty Dozen Brass Band. Performances will provide exhilarating jazz combined with Russian singers, legendary brass and toe-tapping, body-swaying dance. This season should not be missed.

Concertgoers who have already attended a concert know how enjoyable the season will be. Tickets go on sale this month for the Cleo Parker Robinson Dance Ensemble, one of the all-time favorite groups from previous years. The Paul Winter Consort and the Dimitri Pokrovsky Singers will provide Glasnost in the Gardens July 21 and July 22. Tickets for these concerts went on sale June 6. If there are any left you should hurry and grab them up. They won't last much longer.

Music from the Aspen Music Festival
Thursday, July 7 and Friday, July 8 at 7:30 p.m. (Rain date—Saturday, July 9 at 10 a.m.) Gates open at 6 p.m. *Tickets went on sale Monday, June 27.*

This year brings two great evenings of music from Colorado's internationally recognized music festival. On Thursday evening it's brass with the American Brass Quintet and Friends. Always full of surprises, the American Brass Quintet is a legendary brass ensemble in North America. If strings are your forte, join us on Friday evening as the Guiness String Quartet joins forces with the Atlantic Quartet for a performance of Mendelssohn's Octet and other works. If you'd like, we'll waive the usual rules and gladly sell you tickets for both evenings.

Glasnost in the Gardens: The Paul Winter Consort and the Dimitri Pokrovsky Singers
Thursday, July 21 or Friday, July 22 at 7:30 p.m. (Rain date—Saturday, July 23 at 10 a.m.) Gates open at 6 p.m. *Tickets went on sale June 6 (same day as The Dirty Dozen Brass Band tickets) and were priced at $8 for members and $10 for non-members.*

In September 1986 the Paul Winter Consort toured the Soviet Union. They were the first American group to tour the U.S.S.R. under the Geneva Cultural Agreement signed by President Reagan and Premier Gorbachev. In Moscow they met the Dimitri Pokrovsky Singers and found an instant kinship, and much musical common ground. The result? The first album co-created by American and Soviet musicians—the increasingly popular *Earthbeat* album. And now, you have the rare opportunity to enjoy the Paul Winter Consort and the Dimitri Pokrovsky Singers in the intimate setting of Denver Botanic Gardens.



The Cleo Parker Robinson Dance Ensemble
Thursday, August 4 or Friday, August 5 at 7:30 p.m. (Rain date—Sunday, August 7 at 10 a.m.) Gates open at 6 p.m. *Tickets on sale Monday, July 25.*

It's always a stunning evening of music and dance with Colorado's own Cleo Parker Robinson Dance Ensemble. It's only been one summer, but the ensemble is back—by your request. As in the past with Cleo Parker Robinson at the Gardens, there will be a live musical accompaniment and more than a few surprises.

Refer to your June *Green Thumb News* for ticket outlet information and for prices. Remember to turn to KCFR 90.1 FM on concert days for weather forecasts and announcements concerning the status of that evening's concert. Concert announcements will be made before and during KCFR's broadcast of "All Things Considered" on weekdays beginning at 4 p.m.



Cleo Parker Robinson and her dance troupe are favorites at DBG in the summer.



Lilium 'Orange Pixie' blooms along our Lily Path.

Down the Garden Paths in July

While you're at the Gardens for the daylily show you'll certainly want to stroll through the daylily display garden where some 450 varieties are planted for your inspection. In mid-July most of them will be in bloom, offering you a good opportunity to note the kinds you want to place in your own yard.

However, you'll also want to see the display of "true" lilies located in the southeast corner of the Gardens where they're grouped among the blue spruce trees on the berm north of Botanic Gardens House. This is the month when they, too, are at their peak of bloom.

Though both the daylilies and the lilies are members of the lily family, these true lilies are of the genus *Lilium,* growing from bulbs composed of overlapping scales. Of more widely differing origins, these lilies exhibit a greater variety of blossom form, fragrance and plant habit. Daylilies, on the other hand, though often referred to merely as "lilies," belong to the genus *Hemerocallis* and grow from a rhizomatous underground structure.

In mid-July the Lobby Court will feature begonias. This annual showing has been a favorite of our summer tourists for years, evoking comments of wonder about the amazing range of leaf shape and color exhibited by this interesting genus.

This brings us to an interesting observation. While the daylilies have attracted legions of growers, evidenced by the regional society that is hosting the exhibition, neither the lilies nor the begonias, spectacular and interesting as they are, have an organized local following.

Over the years the Gardens has received inquiries from isolated growers who would like to be in contact with others who appreciate their favorite plants. However, there has been no concerted effort in the Denver, Colorado, area to form such a band for either begonias or lilies.

Perhaps now is the time to begin such an undertaking. If you are interested in forming a gardening society centered around either of these plants, call the Education Department at the Gardens, 331-4000, extension 44. We'll help you contact others who share your interest.

News from the Associates and the Gift Shop

Donating time in volunteer activities has recently become even more popular. Many of the members of the Gardens already know how rewarding it is to volunteer their time and have contributed many hours to the Gardens through the Associates of Denver Botanic Gardens.

The Associates is the largest volunteer group affiliated with Denver Botanic Gardens. Volunteer activities include gardening, working in the DBG Gift Shop (operated by the Associates), participating in craft and potpourri workshops, hostessing at special events, helping in administrative areas, working in the greenhouses, guiding tours and just about anything that needs to be done that somebody's not currently being paid to do.

If you would like to join, please stop by the Information Desk in the Lobby Court at the Gardens and fill out an application. If you're currently volunteering at the Gardens, but haven't joined the Associates, they wish you would. As members of the Associates you can enjoy a free lunch (at their annual meeting) if you join by August.

The primary fundraising activity of the Associates for the Gardens is the operation of the Gift Shop. Every gift you buy for loved ones or yourself is also a gift to the Gardens.

June 1 marked the start of the new 10 percent discount on purchases by members. The only restrictions are that you need to present your membership card when paying and your purchase (pre-discount) must total $10 or more.

July is also flower time. Flowers are everywhere and the Gift Shop has an outstanding selection of flower arranging supplies. They have vases for casual bouquets or formal arrangements. Cut and trim your flowers with fine quality shears. They stock needle-point flower holders, clear marbles and Oasis as well as floral tape, floral clay and floral wire in all thicknesses. Beautiful arrangements come easy with the right supplies.

Need ideas? Browse through their fine selection of books on flower arranging (not to mention numerous other garden topics). And while you're at it, buy some wildflower seeds to complement your beds of annuals and perennials.

July Fun With Young Audiences

Eulipions, a Denver Dance Company, interprets "How the Zebra Got His Stripes and Other African Tales" at the July 12 Young Audiences Concert. Children of all ages will enjoy this concert, but younger children in particular will delight in learning more about the unusual folktales of Africa.

Two performances remain in the Young Audiences Concert season. This popular concert series is presented to you by Young Audiences, Inc., in cooperation with the Gardens; Channel 9 KUSA-TV, media sponsor; and PACE Membership Warehouse, Inc., concert sponsor.

Tickets are $4 each with children under 2 free. Call 825-3650 to purchase tickets with VISA, Mastercard or Choice. One week prior to these concerts, tickets will be sold at the Botanic House of the Gardens, 909 York Street. It is expected that few, if any, tickets will be on sale at the gate because of advance sales.

Don't miss a fun evening at the Gardens with your family. The final concerts of this series are:

How the Zebra Got His Stripes and Other African Tales
Tuesday, July 12 at 6:30 p.m. (Rain date—Sunday, July 17 at 10 a.m.)
Gates open at 5:45 p.m.

Four African folktales will come to life through authentic music, mime and dance when Eulipions performs at this concert.

Peter and the Wolf: Celebrity Edition
Tuesday, July 26 at 6:30 p.m. (Rain date—Sunday, July 31 at 10 a.m.)
Gates open at 5:45 p.m.

The "stars," local dignitaries and celebrities, come out for the final concert on July 26. The Young Audiences orchestra and well-known mime Kay Cassperson join them for this special retelling of the beloved children's story.

Members' Day at Chatfield Arboretum

On July 10, a few lucky DBG members (300 in fact), will have the opportunity to participate in the first Members' Day at Chatfield Arboretum. Since this is an introduction to the members of DBG, and since most of you have never been to the Arboretum prior to this, we are offering a map on page 6 for your use. Enjoy your visit and be sure to save the confirmation card sent to you.



Fun at a Young Audiences concert

DBG's Trial Gardens Used to Evaluate New Plants

July is a good time to visit the annual trial gardens, located south of the main Aquatic Plants Display. Because of our intense sunlight and low humidity, nursery catalog descriptions are not always accurate for this region. These trial beds offer gardeners the opportunity to evaluate bedding plants and their performance in Colorado before placing them in their gardens. A perennial trial area is being developed.

The annual and perennial trial areas are made possible through the generosity of the following local businesses.

Garden centers: Center Greenhouse, Inc.; City Floral, Inc.; Echter's Greenhouses, Inc.; Englewood Garden Center and Florist; The Flower Bin; Front Range Gardens; Groundcovers Greenhouse and Nursery; Gully Greenhouse; Plants n' Things; and Welby Garden Center.

Wholesale plant growers: Busch Greenhouses, Inc.; Chipsea; Brown's Greenhouse; Horiuchi Brothers, Inc.; Kiyota Greenhouse; and The Park Floral Co.

Garden Tour

continued from page 1

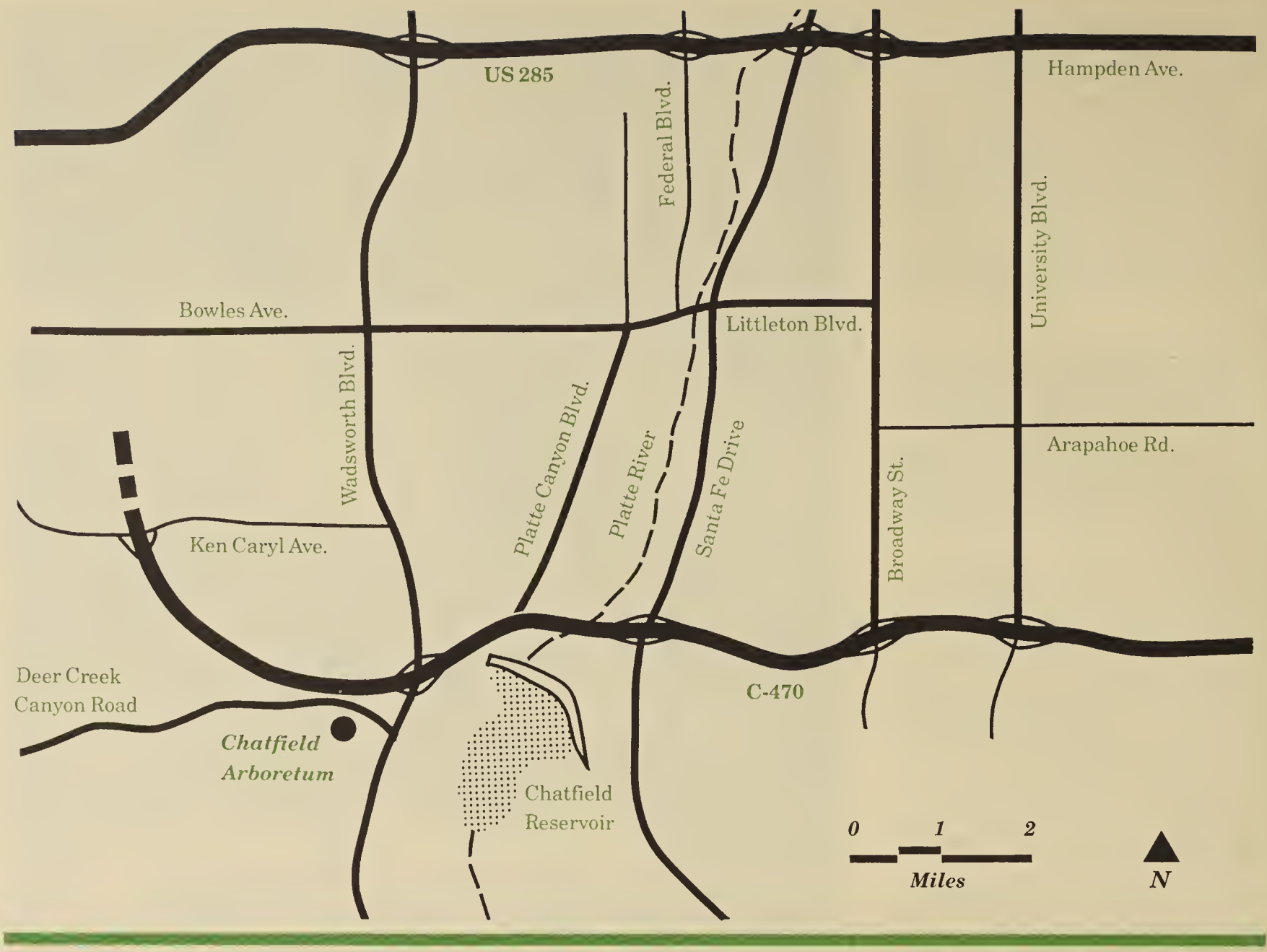
other are newly landscaped in front. Both homes feature a bold background of red rock outcrops framing their backyards for a very secluded, yet wild feeling. Selected natural vegetation provides striking accents.

Chatfield Arboretum naturalist guides will take visitors on a tour of the nearby Chatfield Arboretum. To get there take C-470 to the Wadsworth exit and follow the directions on the map to the Arboretum included in this newsletter. This tour of Chatfield Arboretum will include the 1860's historical Hildebrand Homestead, the wetlands area and a tranquil riparian trail.

The gardens on the 1988 Terrace and Garden Tour are:
10582 W. Daken Mountain
7585 Elkhorn Mountain
1 Tamarade Drive
24 Tamarade Drive
7 North Ranch Road
14 North Ranch Road
6 Red Fox Lane
59 North Ranch Road
61 North Ranch Road

Tickets can be obtained by mail (see June *Green Thumb News*), in DBG's Gift Shop (after July 1), or at the homes the day of the tour. Adult tickets are $8 each, children's (5 to 12 years old) tickets are $4 each and children under 5 are free. Mail orders need to be received no later than July 17. The Terrace and Garden Tour is a benefit for DBG provided by the Denver Botanic Gardens Guild.

Map to Chatfield Arboretum



Mushroom Photographer Taylor Lockwood at DBG July 11

Nationally acclaimed mushroom photographer Taylor Lockwood of the North America Mycological Association will present his slide show, "The Hidden Forest," in John C. Mitchell II Hall on Monday, July 11 at 7:30 p.m.

"The Hidden Forest" is a collection of Mr. Lockwood's favorite mushroom slides that he has set to classical music.

Mr. Lockwood recently presented his synchronized mushroom slide show at the Los Angeles Mycological Society Mushroom Fair. Reviews by the society stated that the slide show received "the longest and loudest ovation of any presentation the Los Angeles Mycological Society has had."

There is no charge for this program sponsored by the Colorado Mycological Society and it is open to the public. Anyone requiring further information may call 935-2390.

Iris Rhizome Sale July 9

If you're contemplating planting iris this year, July is the month to do it, and on Saturday, the 9th, Denver Botanic Gardens is the place to buy your new plants.

Iris growers in Region 20 of the American Iris Society will be offering for sale rhizomes from their own gardens. This organization boasts nationally recognized hybridizers among its membership. In many cases the plants offered will be divisions of the most modern varieties available to local gardeners.

The sale will run from 10:00 a.m. to 3:00 p.m. It will be located in the sunken terrace just inside the main entrance of the Gardens. Last year it was a sell-out so, if you have definite choices in mind, you're advised to arrive early.

If you visited the iris exhibition in June you surely made mental notes about some beautiful "must haves" for your garden. This is your opportunity to get them.

Daylilies on Display and for Sale

On Sunday, July 17, Region 9 of the American Hemerocallis Society will host its annual daylily show and sale in John C. Mitchell II Hall at Denver Botanic Gardens. Hours are noon to 4:30 p.m.

The exhibition will include both new and established daylily varieties, including blossoms of selected seedlings of local hybridizers. The plants offered for sale are divisions of plants grown locally by society members.

There is no charge for this show beyond the regular Gardens entrance fees: $4.00 for adults under 65, $2.00 for adults over 65 and for children aged 6 to 16. Members of the Gardens are, of course, admitted free.

For more information contact Charles Baker, 757-8703 or Dennis Westbrook, 233-4604.

Of Interest to Members: Gardening Programs on Channel 6

six
KRMA TV·Denver

DBG members may be interested in the following schedule of topics covered during the month of July on "Victory Garden." The show airs on Saturday afternoons at 12:30 on Channel 6.

July 2: Flowering annuals of the South; harvesting a vegetable patch and planting fall vegetable crops.

July 9: Long Island's famed Westbury Gardens

July 16: Visit Callaway Gardens for a primer on plants that attract butterflies.

July 23: Dwarf and slow-growing conifers on Long Island

July 30: A trip to a Western garden for a landscaping lesson

Glass at the Gardens

One of the year's most beautiful events in Denver is "Glass at The Gardens," the annual show and sale by the Glass Artists Fellowship. Glass is an intrinsically lovely medium for art expression, but when the colors in the glass and the play of light on the bevels, mirrors and the other glowing surfaces are set off by a green foil of tropical plants, the effect in John C. Mitchell II Hall at Denver Botanic Gardens is nothing short of stunning.

For those whose image of glass art is limited by mental pictures of stained glass windows, the amazing diversity of the pieces to be shown will astound. In the past there have been abundant examples of "traditional" stained glass work, pieces of glass shapes, with or without beveled edges, bonded by copper or lead came. The contemporary artists represented in this exhibit have now released this genre from subservience to the necessities of architecture. Drama and whimsy (even slightly outrageous satire) abound, always executed with the highest technical skill and artistic intention.

The exhibit consists of several divisions. Other flat works in the "Fine Art" section use mirrored, etched, layered or painted, as well as stained, glass. Three-dimensional works range from splendid crystal table sculptures to moody abstract scenes whose continuous change is controlled by interior lighting.

In the "Fine Craft" area are beautiful glass jewelry boxes, lamps, kaleidoscopes of evocative charm and other fascinating objects.

One of the most popular sections is "Small Objects." Window hangings, paperweights, toy-like "whats-its" and personal adornments here prove that well-crafted, original glass art may be had at very reasonable prices.

Overall, prices range from a few dollars to tens of thousands. It's obvious that some of the pieces are destined for museums or the homes of very serious collectors. However, most of the works lie within the range of anyone seriously looking for an unusual, fine piece of art for the family or corporate home.

The ninth annual presentation of this exhibit will be the largest show and sale of new glass art work in the United States. It will be at the Gardens August 4 to 7.

This event will be open to the public during all of the Gardens' open hours, including the extended evening hours. Members of the Gardens are admitted free. Their guests need pay only the regular gate fee; there is no additional charge for the exhibit.



The Tin Man was featured at the 1987 Glass at the Gardens Show.

Don't Forget the Watercolor Show and Sale

The busy July schedule at the Gardens begins with an art show and sale by the Colorado Watercolor Society July 1 to 4. Members of the Gardens will appreciate the preponderance of natural subjects in the paintings, though still lifes, abstracts and portraits will also be on view.

The show opens at 9:00 a.m. each day. Friday, July 1, and Monday, the Fourth of July, the doors will close at 4:45 p.m. Both Saturday and Sunday, however, the exhibit will remain open until dusk for those art lovers whose holiday celebrations may preclude a visit earlier during the day.

Gloxinia Gesneriad Growers Sale

Gesneriads, that family of plants that includes the African violet, and some of which are about the size of a half dollar at maturity and others grow to seven feet tall, will be the subject of an exhibit and sale the weekend of July 23 and 24.

The event is appropriately titled "In the Good Old Summertime" and is sponsored by the Gloxinia Gesneriad Growers, a society of 35 gardeners from several cities along the Front Range.

An unusually generous gesture of this group will be to give free starter plants to each visitor. Members have donated plants of several genera that will be cut up into mallet cuttings (leaf cuttings that include a portion of the stem) for this giveaway. Attendants of the show will receive a cutting, rooting media and instructions for propagation. This offer will last as long as the supply holds out.

The exhibit will include judged displays in several categories, including educational displays, artistic plantings and bubble bowls. In the past the educational exhibits have featured the geographical distribution of gesneriads, a video on the genera of the family and a display of pollinators.

The sale will offer both starter plants and mature specimens of such genera as *Aeschynanthus, Columnea, Episcia, Sinningia,* and the widely known African violet, *Saintpaulia*. Hundreds of plants will be for sale, with prices ranging from 50 cents to $15.

This promises to be a very interesting exhibition of an interesting plant family. To be held in John C. Mitchell II Hall, it will be open from 1:00 to 4:30 p.m. Saturday and from 9:00 a.m. to 4:30 p.m. Sunday.

For more information call either of the event chairmen at 830-1658 or 781-2406.



By Colorado Watercolor Society member Dorothy Foster

CLASSES

Summer
1988
Denver Botanic Gardens

Field Trip to Rocky Mountain National Park

Saturday, July 9
10 a.m. to 3 p.m.

Explore the rich woods surrounding two of the prettiest, most accessible lakes in the park. Participants will see various members of the heath family such as pyrolas and wintergreens that are at home in the moist areas of the subalpine forests.

The leader is especially fond of the wild orchids, and, with luck, the group should find several of these, including the elusive little purple lady's slipper, *Cypripedium fasciculatum*.

Don't forget your lunch.

Leader: Dick Schwendinger

Meet: promptly at 10 a.m. at the Moraine Park Visitor Center. Please call the Education department at 331-4000, extension 20, if you need directions. Each car entering the park must purchase a daily user pass in addition to the field trip fee.

Fee: $5 members/$5.50 non-members

Limit: 15

Columbine Field Trip

Wednesday, July 13
9 a.m. to 4 p.m.

Our state flower should be blooming in profusion on this traditional field trip site near Bailey.

Located at the edge of the montane zone, habitats visited will include an interesting damp gulch and a ponderosa pine forest. If the group is lucky, wood lilies may be found.

Meet: at 9 a.m. in the main DBG parking lot to carpool and receive directions. Participants will share gasoline expenses.

Leader: Peter Root is an amateur botanist who volunteers regularly at the Kathryn Kalmbach Herbarium at DBG. He is also a volunteer naturalist at Roxborough State Park.

Fee: $2 per person.

Limit: 20

Tundra Trip to Corona Pass

Saturday, July 23
9 a.m. to 4 p.m.

Visit one of the most spectacular passes in the Front Range. Observe tundra ecology and many different wildflowers as well as man's influences. Follow the abandoned railroad to the hotel on top, look at ancient Indian game drive fences and see gas pipeline revegetation in this high altitude environment.

The abundant wildflowers found here include paintbrushes, early gentians, miniature clovers, alpine avens and snow buttercups.

Don't forget your lunch and rain gear; bring a hand lens and plant books if you have them.

Instructor: Paul Kilburn, Ph.D.

Meet: promptly at 9 a.m. at the northeast parking lot of the Rock Cut (I-70 at Exit 259).

Fee: $5 members/$5.50 non-members

Limit: 18

Field Trip to Mount Goliath

Sunday, August 14
8 a.m. to 3 p.m.

Tundra flowers hold a special fascination for both amateur and professional botanists and Mount Goliath is an exceptional place to observe them. Carpets of dainty wildflowers are complemented by grand mountain vistas and the sculptured, grizzled beauty of the bristlecone pines.

Join two experienced field trip leaders and walk the M. Walter Pesman Trail, a winding 1.5-mile downhill path at 12,100 feet.

Please bring your lunch, drinking water and jacket and wear comfortable walking shoes.

Instructor: Panayoti Kelaidis is curator of the award-winning Rock Alpine Garden at DBG and is a popular and enthusiastic teacher.

Meet: promptly at 8 a.m. in the main DBG parking lot.

Fee: $15 members/$16.50 non-members. This includes Janet L. Wingate's illustrated brochure, *Wildflowers of Mount Goliath*, as well as bus transportation.

Limit: 45



Tallgrass Prairie Field Trip

Saturday, August 27
10 a.m. to 3 p.m.

Observe the best examples of tallgrass prairie along Highway 93 between Golden and Boulder. The dominant species is big bluestem but many other grasses such as switch grass, needle-and-thread, little bluestem, and side oats gramma will all be seen at their peak. Fall flora including several asters, blazing stars and goldenrods will will also be seen.

Please bring a plant identification book and a hand lens if you have them and don't forget your lunch.

Meet: Promptly at 10 a.m. 1.8 miles north of Highway 58 (Golden) on Highway 93 at the gravel road on the east side of Highway 93 by the small cottage.

Instructor: Paul D. Kilburn, Ph.D., has taught botany and ecology in Illinois and Colorado for many years.

Fee: $5 members/$5.50 non-members

Limit: 20

Design for the Urban Garden

(two sessions)

Section I: **Friday, July 29 and Saturday, July 30 from 9:30 a.m. to noon**

Section II: **Friday, July 29 and Saturday, July 30 from 1 to 3:30 p.m.**

(Please note that Section I has been filled.)

Tour a handful of city gardens of stunning beauty whose owners have coaxed horticultural wonders from barren lots. These range from an intimate courtyard to a rambling cottage garden, and will excite novice and experienced "green thumbs."

Dealing with shade, clay and other challenges, these gardens present possibilities for even (seemingly) hopeless sites. The focus will be on creating a personal and colorful garden with common and unusual perennials, shrubs, bulbs, herbs and annuals.

Meet: Promptly at 9:30 a.m. at the main entrance to the Gardens to receive directions and carpool.

Instructor: Rob Proctor combines art and gardening in an interesting way. His award-winning urban garden is the inspiration for his botanical drawings. An internationally known watercolorist, Mr. Proctor is an art instructor at DBG and his work is currently exhibited at the Smithsonian Institution. His skills are in demand as a perennial garden consultant.

Fee: $20 members/$22 non-members

Limit: 12



Victoria amazonica in the Aquatic Plants Display.

Perennial Pleasures

(five sessions)
Tuesdays, August 2, 9, 16, 23, 30
7 to 9 p.m. **Classroom C**

With proper planning and planting, perennials can enhance any garden with long-term beauty and reduced maintenance. Discover the pleasures of perennial gardening in this five-session course that covers garden design, soil preparation and cultivation as well as a multitude of suggested plants.

Perennials for specialized situations such as shady areas will also be discussed. There will be ample opportunity for questions.

Instructor: Andrew Pierce is a horticulturist and is Assistant Director of DBG. He is an accomplished grower of perennials and alpine plants.

Fee: $40 members/$44 non-members

Night-blooming Nymphaeas

(one session)
Tuesday, September 6
8 to 9:30 p.m.

This is an opportunity to observe some notorious nocturnals. As the sun fades, see colorful and mysterious night-blooming tropical waterlilies unfold. Walk to the main pool to view the grandest waterlily of them all, the giant water platter, *Victoria*.

Specially prepared lights will illuminate the waterlily blossoms. Cultural information will be provided in the cool of the evening with time allowed for questions and photography.

Meet: at the upper pool by the main fountain promptly at 8 p.m.

Instructor: Joe Tomocik is a gardener florist II at DBG and is responsible for maintaining the Water Garden Display.

Fee: $6 members/$7 non-members

Water Gardening Highlights

(one session)
Saturday, September 3
12:30 to 2:30 p.m.

See the waterlilies at their peak and learn about the famous hybrids of Joseph Bory LaTour and Dr. George H. Pring.

Observe the authentic blue lotus of the Nile, *Nymphaea caerulea,* the rare tropical *Nymphaea flavo-virens* from Mexico and a newly discovered white tropical waterlily from Africa.

This is a good time to have your questions answered as well as take pictures.

Meet: at the upper pool by the main fountain promptly at 12:30 p.m.

Instructor: Joe Tomocik

Fee: $8 members/$9 non-members

Facing page: Bristlecone pine at Mount Goliath





Volunteer Kathryn Kawakami will perform tea ceremonies throughout the summer in the Teahouse.

Japanese Tea Ceremony

Section VII: Sunday, July 10
Section VIII: Saturday, July 23

(one session) 2 to 3 p.m.
Tea House in DBG's Japanese Garden

Please indicate your section on the registration form.

Because of its emphasis on such concepts as harmony, respect, purity, tranquility and elegant simplicity, the tea ceremony has for centuries been considered the epitome of Japanese life. This is an opportunity to experience an authentic tea ceremony in the quiet splendor of our Japanese Garden.

Instructor: Kathryn Kawakami has done much to inform Denver area residents and students about the culture of Japan. She will be assisted by William Crowder who studied the tea ceremony in Japan at Ura Senke.

Fee: $4.50 members/$5 non-members

Limit: 15

Arranging Lessons with Fresh Flowers

(four sessions)
Mondays, July 11, 18, 25, Aug. 1
9 a.m. to noon Classroom B

Summer is the perfect time to learn how to make floral arrangements that will complement a favorite spot in your home. Students will learn how to select and cut fresh flowers for arrangements that will be prepared in class.

Please bring two containers (no glass or silver), clippers, scissors or knife, a large bucket for gathering flowers and two needle-point flower holders (available in the DBG Gift Shop). All other materials, including flowers, will be provided.

Instructor: Avalonne Kosanke is a master flower judge for the National Council of State Garden Clubs and has over 25 years of teaching experience.

Fee: $53 members/$58 non-members (includes a $5 materials fee).

Watercolor Painting

(five sessions)
Wednesdays, July 13, 20, 27, August 3, 10
9:30 a.m. to 12:30 p.m.
Classroom B

Explore the sparkle and delicacy of watercolor painting while enjoying the natural setting of Denver Botanic Gardens. This course will cover the basic materials and techniques of watercolors with emphasis on the freedom of personal expression.

Come prepared with supplies. You'll need: a 1½-inch flat brush, a #10 round brush, watercolor paper, tissues, container for water, plastic palette and cake or tube watercolors.

Instructor: Lynette Swanson-O'Kane is a graduate of the Philadelphia College of Art and a professional artist with national representation of her work.

Fee: $60 members/$66 non-members

Limit: 12

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206
Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 331-4000.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Daytime Phone _____ Evening Phone _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

Gardening Tips for July: Pruning Your Roses

Is the primary reason for pruning trees and shrubs to make them attractive, to keep them healthy, to keep them in bounds or because you have the time to do it?

Sometimes this is a difficult question. There are elements of all four choices in making the decision to prune. However, the *primary* determiner, not only whether or not to cut woody plants, but the time and manner in which it is done, is their health. If pruning is needed for any other reason, then the well-being of the plant must still guide both the "how" and the "when."

Gardeners may be called upon to prune any time of the year, not only in the spring. Summer brings pruning considerations all its own. Keeping the health of the plant in mind, let's examine one of these, the summer pruning of roses.

Perhaps the most frequently pruned plant in July is the rose, particularly the types called floribundas (those with many, generally smaller flowers clustered on their stems) and hybrid teas (now sometimes referred to merely as "large flowered"). Not that this is the time when, for their health, they should be pruned severely, but it is the time when most cuts are made.

We cut a fresh blossom to bring indoors, snip spent blooms to tidy the appearance of the plant or cut back a vigorous shoot that threatens to snag us as we pass by on the walkway. This is pruning the plant.

These three purposes to prune roses may not have a readily apparent relationship to the health of the plant, but consider this:

Plant health is not only temporary freedom from pests or disease. It is also the vigor to withstand them and to grow, to build and store new tissue for new leaves, stems, roots and flowers or fruits. Any factor that affects this ability affects the health of the plant.

Cutting a flower stem, if done properly, encourages new vigorous stems to grow. Pruning back an intruding branch, if done correctly, protects the plant from receiving bruises or breaks and also encourages strong new growth. So, though we gardeners may have other purposes in mind when we prune, from the plant's perspective the primary reason is for the health of the plant.

To keep your roses healthy through pruning, here are some tips:

Make any pruning cut just one-quarter inch above a node (that point on the stem where a leaf or branch emerges). Any stub that you leave eventually dies, and this tissue is a likely spot for disease invasion. A small stub puts only a small area at risk.

When you snip a flower, cut the stem at a point below all leaves that have fewer than five leaflets. The plant will try to grow a new branch at the node just below your cut. New shoots that grow from three-leaflet nodes are much weaker than those from five-leaflet nodes; often they don't sprout at all. If the stem is long enough and if it has several five-leaflet nodes, it is better to choose the second one from the top to ensure more vigorous branching.

Where possible, choose a node that lies on the side of the stem that lies away from the center of the rose plant. This will point the new shoot outward and help keep the center of the plant open, encourage better air circulation and lessen the opportunity for insect or disease infestation.

After you've finished any summer rose pruning, *seal every cut*. Either nail polish or white glue serves this purpose, and other products may work. But, due to the activities of a particular insect, this is a very important step, especially in the central part of the country.

If you look closely at the end of the stem you've just cut, you'll see that the center of the stem is soft and pithy. A type of rose carpenter bee, which chews circular pieces out of the leaves of roses, lays its eggs in this pith. The larvae, when hatched, burrow down through this soft center as they feed, leading to the death of the stem above the farthest point to which they burrow. A large portion of an otherwise healthy plant may be lost in this manner. Sealing up the freshly cut stem discourages the bees from laying their eggs.

Finally, as with all pruning, whenever you cut rose plants for any purpose make sure your tools are clean and uninfected by previous use on diseased plants.



Correct rose pruning is described in this month's "Gardening Tips."

It's a long-standing dictum that the time to prune is when you've got the time and your pruners are sharp. But different plants, for their health, can have different seasons when pruning care is essential. For roses, summer is an important one.

Larry Latta
Botanist-Horticulturist
Denver Botanic Gardens

CALENDAR

JUL

S	M	T	W	T	F	S
**First meeting of a class with more than one session*					1 Watercolor Show and Sale	2 Watercolor Show and Sale, "Escape to the Gardens"
3 Watercolor Show and Sale, "Escape to the Gardens"	4 Watercolor Show and Sale	5	6 "Escape to the Gardens"	7 Music from the Aspen Festival	8 Music from the Aspen Festival	9 Iris Rhizome Sale, Field Trip to Rocky Mtn. National Park, "Escape to the Gardens"
10 Members' Day at Chatfield Arboretum, "Escape to the Gardens," Tea Ceremony	11	12 Young Audiences Concert	13 "Escape to the Gardens," Columbine Field Trip	14	15	16 "Escape to the Gardens"
17 "Escape to the Gardens," Daylily Show	18	19	20 "Escape to the Gardens"	21 Glasnost in the Gardens	22 Glasnost in the Gardens	23 Terrace & Garden Tour, Gesneriad Show, Corona Pass, Tea Ceremony
24 "Escape to the Gardens," Gesneriad Show	25	26 Young Audiences Concert	27 "Escape to the Gardens"	28	29 Design for the Urban Garden*	30 "Escape to the Gardens"
31 "Escape to the Gardens"						

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at Denver Botanic Gardens. Here is a listing of those groups and a ***general*** *indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 331-4000.*

African Violet Society, *4th Thurs. of 7 months;* ***Bonsai Society,*** *1st & 3rd Tues.;* ***Cactus & Succulent Society,*** *2nd Tues.;* ***Civic Garden Club,*** *1st Fri.;* ***Colorado Native Plant Society,*** *4th Wed.;* ***Gloxinia Gesneriad Growers,*** *1st Sat.;* ***Hemerocallis Society,*** *3rd Sun. of 4 months;* ***Ikebana International,*** *4th Fri.;* ***Iris Society,*** *spring & fall dates;* ***Men's Garden Club,*** *4th Thurs.;* ***Mycological Society,*** *2nd Mon.;* ***Rock Garden Society,*** *3rd Wed.;* ***Rose Society,*** *2nd Thurs.;* ***Ultra Violet Club,*** *4th Mon.;* ***Water Garden Society,*** *2nd Sun. of 5 months.*

Coming Next Month

August 2
Perennial Pleasures

August 4-5
The Cleo Parker Robinson Dance Ensemble

August 3, 6 & 7
"Escape to the Gardens"

August 4-7
"Glass at the Gardens"

August 10, 13 & 14
"Escape to the Gardens"

August 17, 20 & 21
"Escape to the Gardens"

August 18
Joel Nascimento and the Brazilian Sextet

August 24, 27 & 28
"Escape to the Gardens"

August 25
Santa Fe Chamber Music Festival Piano Quartet

August 27
Tallgrass Prairie Field Trip

August 31
"Escape to the Gardens"

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-331-4000

July 1988

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Green Thumb NEWS

Denver Botanic Gardens

August 1988

Number 88–8

Free Plant Day for Members

Membership benefits include many things: free admission to the Gardens, this newsletter, discounts on classes, and advance notifications of special events. But, each year members are invited to participate in the Members' Yearly Free Plant Day. This year it occurs on September 10. The necessary coupon will be published in the next *Green Thumb News* along with specific plants.

Meanwhile, to whet your appetite, there are some unusual selections offered for outdoor plantings. We will be having two varieties of chrysanthemums that are among the best in the area and are not necessarily of the fall-blooming type. You can pick up an almost white form of tradescantia, or spiderwort, as well as honeysuckles and the highly scented lavender cotton. A relatively new offering from the Iris family is the variegated *Iris pallida* that provides summer-long interest. One of the popular ornamental grasses will also be available. For the gardener with indoor interests, there will be begonias, which were very popular last year but will be of different forms this year. Why not try a variegated form of ficus or oleander? There will also be flowering maples with mottled foliage that makes an interesting indoor plant in all seasons or as an outdoor plant for the summer months. Lesser known but interesting plants for the 1988 free plant day are *Salvia leucantha, Coleus thyrsoideus* and *Euphorbia fulgens*.

The September newsletter will provide more details on selections and how to obtain your plants. Remember, it is just one plant per membership so come early and make your choice wisely. The plants will be located outside, in front of the Gift Shop, and the hours will be on Saturday, September 10, from 9 a.m. until 4 p.m. Care information will also be provided upon request.

The Concert Season Ends in August

Although the Summer Concert Series sponsored by United Bank of Denver ends this month, the memories generated in the amphitheater or on evening strolls will warm you through the winter months ahead. The plans for the 1989 season will be underway as the Santa Fe Chamber Music Festival Quartet gathers up their instruments.

If your summer has been too busy so far to allow you time to enjoy a concert at the Gardens, three remain in August. Tickets went on sale July 25 for the Cleo Parker Robinson Dance Ensemble, but two concerts remain

continued on page 5



Eremurus 'Shelford Hybrids' in our Perennial Border

Inside:

Extended Evening Hours page 2

Mushroom Fair page 3

Conservatory Guide Training page 4

Classes page 6



Brandon Parker shows off his Kabuki face at the opening festivities of "Escape to the Gardens."

Escape to the Gardens in a World of Color

Ever wonder in January, when you are looking at heaps of catalogs, what all those names and descriptions really would look like in a garden? Here is your chance.

On August 10, 13 and 14 the Gardens will be "A World of Color." Enjoy the last of the "Escape to the Gardens" evening events when the annuals are at their most brilliant, the waterlilies their most spectacular, the vegetables laden with fruit, the herbs ready for drying and the night air is beginning to have hints of fall.

The Colorado Water Garden Society will be on hand to answer questions or even help you visualize how magnificent your backyard will look with a water garden too.

The Herb Garden will be full of intriguing smells, textures and visual treasures. Members of the Denver Botanic Gardens Guild, who have diligently worked throughout the year to keep the garden bountiful and beautiful, will be in the Herb Garden. Ask them to share with you the secrets of their success and maybe even help you improve your culinary skills by providing helpful hints on which herbs to use to improve the flavor of your favorite dishes.

Be sure to bring a picnic and your camera so that in January you can remind yourself that Denver really is "A World of Color" and not just white.

Tributes

In Honor of Dr. John R. Durrance
W. Gerald Rainer, M.D.
In Honor of Mr. & Mrs. William W. Grant
Mr. & Mrs. Thomas E. Taplin
In Honor of Ira Rothgerber
Mr. & Mrs. Thomas E. Taplin
In memory of Betty Mitchell Barker
Mary Belle Grant
In memory of Mrs. Stella Burnaby
Mr. & Mrs. Robert E. Jones
Ruth Wade
In memory of Margaret Hennison
Doris & Lou Monahan
In memory of Mrs. Ross (Emma) Lahr
Arapahoe County Rose Society
Christine M. Baker
Mr. & Mrs. Keith Brandt
Nancy P. Brittain
Marilyn Cramer
Tom & Ivy Fails
John & Gloria Falkenberg
Marilyn Girouard
Syd Glick
Helen Grieve
Mildred Halter
Alfred T. Ireson
Merle & Patricia Moore
Dr. & Mrs. H.E. Most
Beverly Nilsen
Frances B. Ratte
Fran Regner
George, Edna & Robbyn Wright
In memory of Ruth Nielsen
Nancy P. Brittain
Solange G. Gignac
Virginia Hayman
Merle & Patricia Moore
Patty Petty
John & Fran Regner
In memory of Alice Richards
Christian & Gertrude Wyant

Herb Discovery Day at DBG

A "Day of Discovering Herbs" has been scheduled at the Gardens Tuesday, August 16. Among the activities planned are a morning demonstration on the use of herbs, a lunchtime slide lecture on herb plants and explanatory tours of the herb and vegetable gardens.

This is one in a series of "Days of Discovery at the Gardens" to be offered by the Education department in an effort to boost attendance and to acquaint the public with many of the important areas of the Gardens and its plants. Each special day will present educational activities and handouts highlighting an interesting theme found in the Gardens.

There will be no charge for these events beyond the regular admission fee at the gate, so members, who receive free admission, are encouraged to tell non-members of these days or bring them as guests. It's a good opportunity to let them see how exciting the Gardens can be and to strengthen public support of our activities. A special treat awaits those who sign up as new members during the event.

Admission for non-members is $4.00 for adults. Those over 65 and children aged six through 16 pay $2.00. For more information call the Gardens at 331-4000, extension 44.

Green Thumb News
Number 88–8 August 1988

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 331-4000.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than July 20 for September, August 20 for October and September 20 for November.

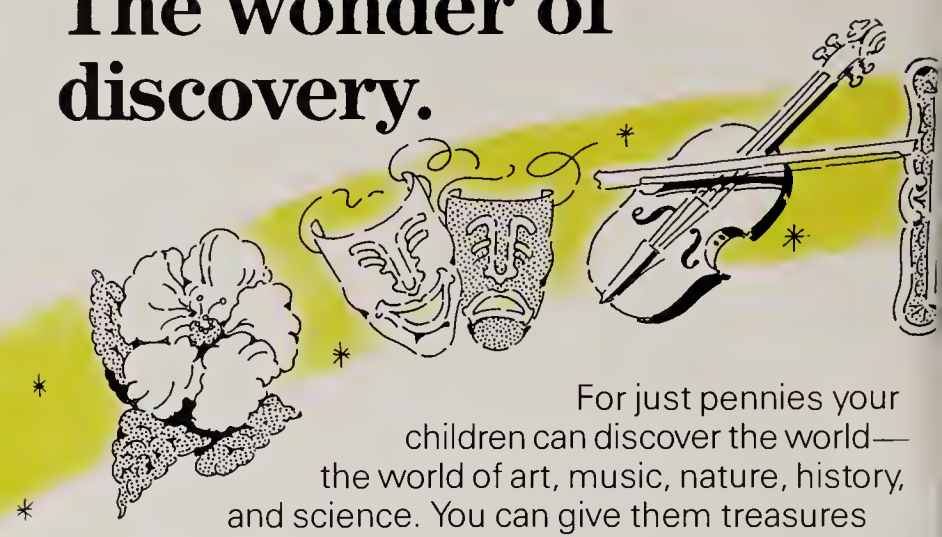
Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 331-4000 for details.

Accredited by the American Association of Museums

For pennies, you can give them something priceless.



The wonder of discovery.



For just pennies your children can discover the world—the world of art, music, nature, history, and science. You can give them treasures like Ramses, "The Nutcracker," and the polar bears of the Northern Shores. You can give them a brighter future when you give them the Cultural Facilities District.

The smallest change can make the biggest difference.

The smallest change—a one-tenth of one percent sales tax—is all the Cultural Facilities District will cost. For the average citizen that's only about 57¢ a month.

For less than 2¢ a day you can give your children the best of cultural wonders. You'll help maintain and upgrade important programs like the Museum of Natural History's Hall of Life, the Zoo's endangered species program, the learn-by-doing exhibits at the Children's Museum, and the mural paintings sponsored by the Art Museum.

In addition to providing education and entertainment for children, our cultural facilities improve the community by providing jobs, bringing in tourist dollars, and attracting new business.

We can make a difference.

Our cultural institutions need our help and the Cultural Facilities District will provide that help.





Over the years, our museums and zoo have been losing city and state support. Colorado currently ranks 42nd out of the 50 states in public funding for the arts. We can do better.

The Zoo, Museum of Natural History, Botanic Gardens, and Art Museum will benefit by receiving 65 percent of the money raised. Other institutions, such as the Denver Center for the Performing Arts, the Children's Museum, and the Symphony, will receive 25 percent of the funds. The remaining 10 percent will go to the six counties in the District—Adams, Arapahoe, Boulder, Denver, Douglas, and Jefferson—to give to local cultural groups, such as the Boulder Philharmonic and the Aurora Fox Center.

This can happen only with your help. Please urge your friends and neighbors to vote for the Cultural Facilities District in the November 8th general election. Go to the polls and vote "yes" yourself. The kids will be glad you did... and so will you.

Vote "Yes" for the Cultural Facilities District.



For more information, call

(303) 825-1800.

Paid for by the Cultural Facilities District, Don Beauregard, Treasurer.

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Cultural Facilities District.
P.O. Box 8915
Denver, Colorado 80201

Glass at the Gardens

"Glass at the Gardens," the sparkling exhibition and sale that arrives for our pleasure August 4 through 7, will this year have something new: some things old.

This show has a reputation for novelty. It is the largest exhibition of new glass art work in the nation. The jury rules prohibit the entry of any work that has previously been seen here at the Gardens.

However, even large studios can produce only a limited number of very large, expensive exhibition pieces a year, so "Glass at the Gardens," in order to present more of these, is calling in a special group of very large pieces that have won awards in the past. These "Oldies But Goodies" will be exhibited separately from the new works and will be exempt from competitive judging.

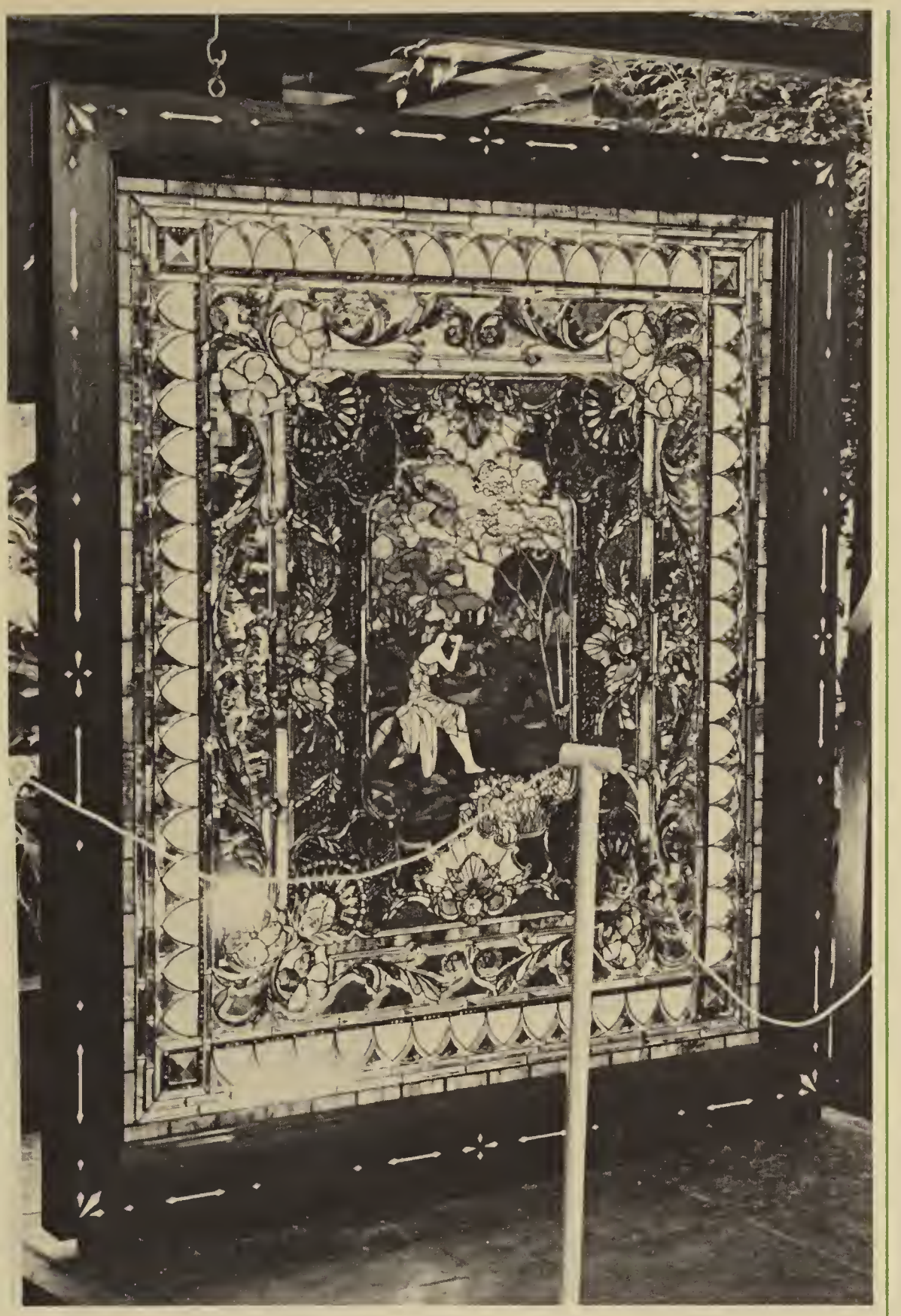
This is an exciting twist to what has become the most popular art show and sale at the Gardens and a regular August destination for art connoisseurs from the entire Rocky Mountain region. It will make this year's show the one members must see if they've only got time to squeeze one summer art experience into their busy gardening and vacation season.

Four divisions make up the primary, competitive portion of the sale and show: "Students," for works by beginning artists; "Small Glass Objects," for less expensive, often very useful, items; "Fine Craft," for moderately priced pieces; and "Fine Art," for works by the finest glass artists in the nation and whose prices range higher.

Visitors can also look over the shoulder of Gary Vigen, Colorado Springs High School art teacher, as he works at making a leaded glass window. The paint he uses is, in reality, finely powdered glass with tint which, when fired at high temperature, melts and actually becomes a part of the glass surface underneath. You can also watch as he demonstrates both foil and lead caming techniques and you can learn how the glass is cut and assembled into a finished piece.

This event will be open during the regular hours of the Gardens, 9:00 a.m. to 4:45 p.m., and during the evening hours of Saturday until dusk.

Because a portion of the sales will benefit its operating fund, it's also a chance to turn your art purchase into assistance to the Gardens. Members, who are admitted free, are encouraged to bring guests. The individual gate fee for non-members is $4.00 for adults, $2.00 for those over 65 and for children from six through 16. Group rates are available. For more information call 331-4000.



A magnificent piece at last year's "Glass at the Gardens."

Mushroom Fair 1988

Gardening for the table may soon enter an entirely new age if members of the Colorado Mycological Society continue with their current efforts. At the 1988 Mushroom Fair at the Gardens on Sunday, April 14, from 11 a.m. to 4 p.m., members of the Society are eager to show you what they're doing.

This year the Fair features a new region of the "Magical World of Fungi" (as the show is themed), their cultivation. At the present time there are only about half a dozen species considered relatively easy to grow by amateur mycologists. But research points toward the day when it may be possible to harvest even morels (those elusive and wrinkled but delectable mushrooms which grow wild in the woods but cost $200 per pound, dried, in the grocery store) from mushroom gardens at our own homes. At this Fair morels and some other mushrooms heretofore considered nearly impossible to artificially culture will be the exciting subject of a special display.

Another tasty section of the show will illuminate the subject of mycophagy, the preparation and eating of fungi. Recipes will be available, as will be experts in this field, to stimulate inquiring gourmets.

Each year members of the society prepare exhibits of mushrooms in simulated natural environments. These attractive displays will again be present at the 1988 Fair, offering good photo opportunities of subjects often hard to encounter in the wild.

Of course one of the most popular features will again be the mushroom identification service. Visitors are encouraged to bring specimens they have found and about which they may have questions. The society will have on hand experts to aid in their identification, as well as to encourage or

continued on page 5

New Conservatory Guides Begin Training September 15

As fall passes into winter, new Conservatory Guides will complete their training program to lead tropical and sub-tropical tours as the cold winds begin to blow. Beginning on September 15 and concluding on November 17, volunteers will receive 10 weeks of tour-guide training.

Students from metropolitan area schools visit Denver Botanic Gardens and the Conservatory as an extension of their classroom experience. Many of these fortunate students are met by our enthusiastic volunteer guides who take them on "jungle" excursions. On these tours, the young students can learn about tropical plant communities, plants valuable to local economy, or simply the variety of plants that exists in the plant kingdom.

Volunteer guides participate in a ten-week training program that prepares them to lead these tours. The class size is limited and advance registration is necessary. To register for this class, use the Education department registration form in this newsletter. A $25 fee will be refunded upon request after 40 hours of touring.

Classes meet weekly for two hours from 9:30 to 11:30 a.m. on Thursdays beginning September 15 and ending November 17. The first hour of each session will be in the classroom and the second hour will be spent in the Conservatory.

New guides can attend continuing education classes that are scheduled throughout the year. Additionally, after 40 hours of volunteering they are able to attend a class in the Education department at no cost other than the materials fee, if applicable. The guide program has an active group that meets frequently so anticipate making new and interesting friends while providing a valuable service to the community.

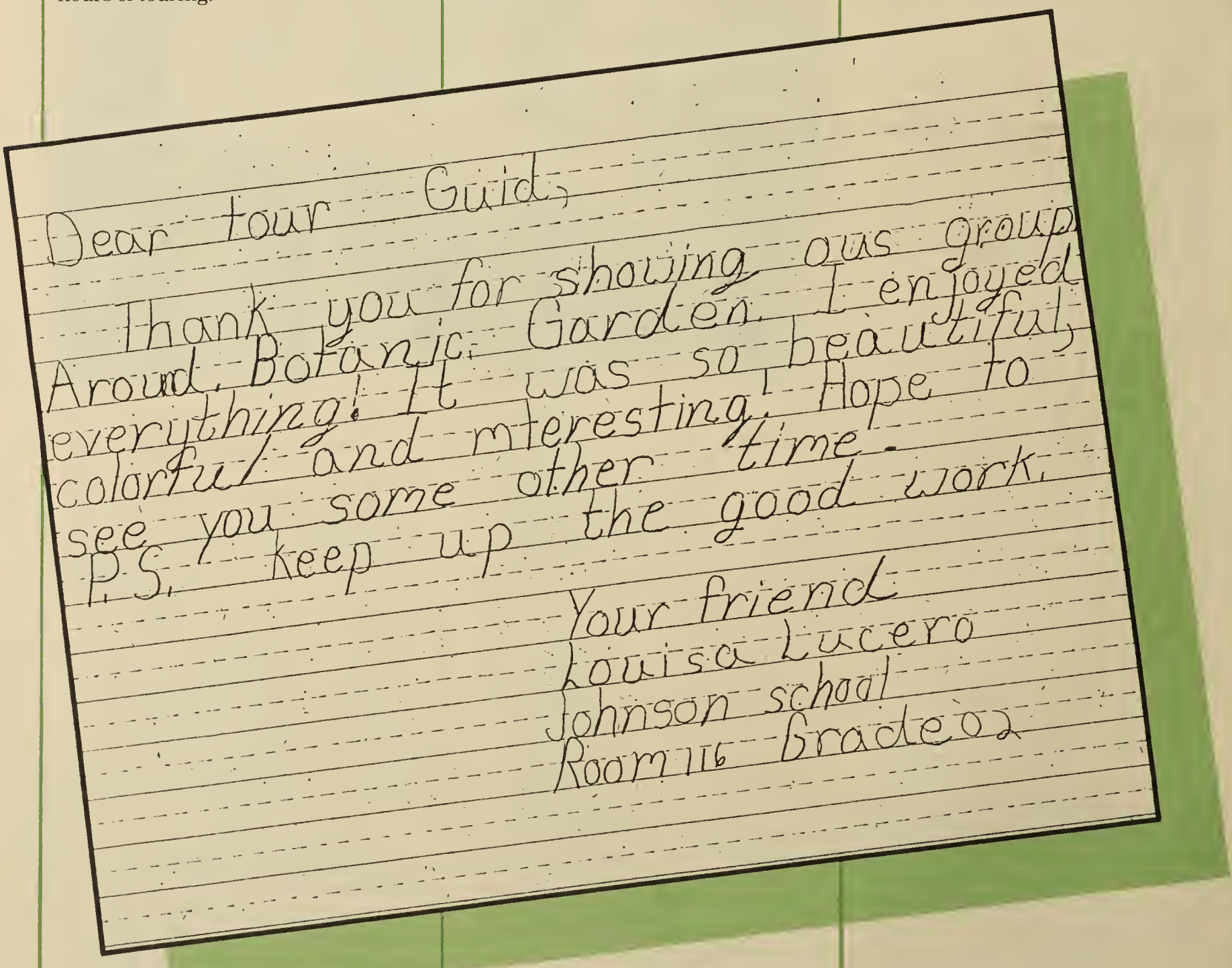
Guides need not be plant experts, just possess a willingness to learn and the ability to provide several hours of time each month. The need for guided tours is an ever-increasing demand that we hope you will consider helping the Gardens meet. For additional information call the Education department, 331-4000, extension 20.

Continuing Education for Guides

Guides and Information Desk Volunteers are frequently the only people visitors to the Gardens ever contact. If you serve in either capacity, questions may be asked that you don't feel comfortable answering. A series of identical brush-up classes is being offered at noon on September 13, 14 and 21 and a brown-bag series will be offered once a month beginning in October to provide continuing education for all of these volunteers.

Conservatory, Outdoor and Preschool Tour Guides and Information Desk Volunteers are all welcome to attend the brown-bag lunches at noon on the second Thursdays of each month beginning in October and ending in April. Subjects will range from plant lore to poisonous plants that grow in the Conservatory.

Schedules will be mailed in August. If you do not receive your invitation to these lunches, call Carolyn Knepp, 331-4000, extension 20. These continuing education classes are just one of the benefits provided for DBG Guides and Information Desk Volunteers.



Dear tour Guid,

Thank you for showing aus group Aroud Botanic Garden. I enjoyed everything! It was so beautiful, colorful and interesting. Hope to see you some other time.

P.S. keep up the good work.

Your friend
Louisa Lucero
Johnson schoal
Room 116 Grade 02

Mushroom Fair 1988

continued from page 3
discourage their use as food.

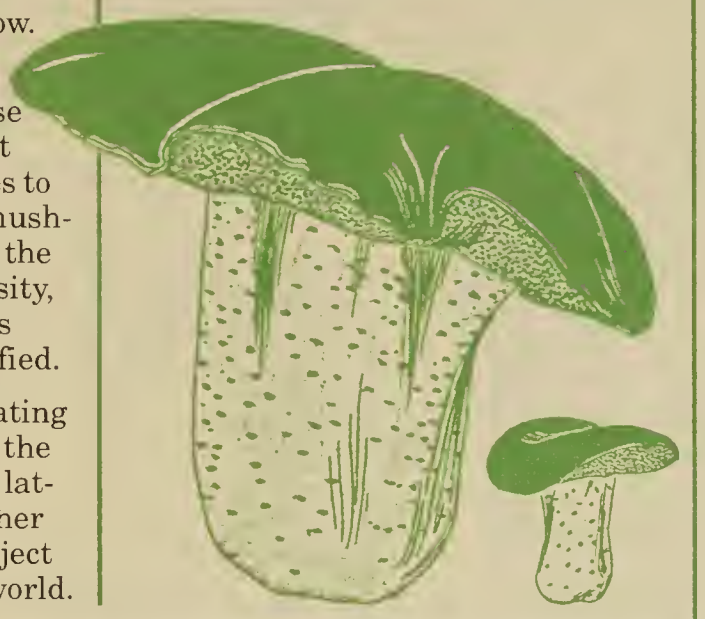
It is well known that many mushrooms are poisonous in varying degrees. The toxicology of mushrooms is the subject of intense study by several members of the society and of one of the sections within this show. These members will also provide information and handouts during the show.

We live in a special area of the "Magical World of Fungi." Because nearby we have so many different ecological zones, from the prairies to the tundra, we often encounter mushrooms unknown in other parts of the country. In fact, due to this diversity, many of the Colorado mushrooms have not yet been properly classified.

The subject of fungi is a fascinating one. There are those that glow in the dark and those that move. These latter, the slime molds, may be neither plant nor animal and are the subject of much debate in the scientific world.

The 1988 Mushroom Fair will provide you with an educational, interesting Sunday afternoon. You may even learn more about gardening.

There will be no extra charge for the Fair beyond the regular admission policy of the Gardens. For more information call either Ken Beacon, a co-chair of the Fair, at 232-0953 or the Colorado Mycological Society at 320-6569.





The Concert Season

continued from page 1
with ticket sale dates in August.

Information on ticket sale locations and prices was printed in the June *Green Thumb News*. It can also be obtained by calling the Gardens. Be sure to pick up parking information at the time you purchase your tickets.

The Cleo Parker Robinson Dance Ensemble
Thursday, August 4 or Friday, August 5 at 7:30 p.m. (Rain date—Sunday, August 7 at 10 a.m.) Gates open at 6 p.m. *Tickets on sale Monday, July 25.*

It's always a stunning evening of music and dance with Colorado's own Cleo Parker Robinson Dance Ensemble. It's only been one summer, but the ensemble is back—by your request. As in the past with Cleo Parker Robinson at the Gardens, there will be a live musical accompaniment and more than a few surprises.

Joel Nascimento and The Brazilian Sextet

Thursday, August 18 at 7 p.m. (Rain date—Friday, August 19 at 7 p.m.) Gates open at 5:30 p.m. *Tickets on sale Monday, August 8.*

Last year we had the tangos of Argentina and this year they'll perform light jazz and gentle sambas of Brazil. Joel Nascimento and his Sextet are legends in their own land, and you'll have an opportunity to find out why at Denver Botanic Gardens. Remember this is one night only at the Gardens.

Santa Fe Chamber Music Festival Piano Quartet
Thursday, August 25 at 7 p.m. (Rain date—Friday, August 26 at 7 p.m.) Gates open at 5:30 p.m. *Tickets on sale Monday, August 8, the same day as the Joel Nascimento tickets. All remaining tickets will be available again at all locations on Monday, August 15.*

This incredible program of musicians from the 1988 Santa Fe Chamber Music Festival includes violinist Daniel Phillips, violist Barbara Westphal, cellist Carter Brey and pianist Jeffrey Swann. Four of the finest musicians in America close out this special summer of music.

Refer to your June *Green Thumb News* for ticket outlet information and for prices. Remember to turn to KCFR 90.1 FM on concert days for weather forecasts and announcements.



Volunteer Joan Franson judges roses in the AARS test beds.

Facing page: DBG Japanese Garden Specialist Kai Kawahara demonstrates bonsai techniques.

Down the Garden Paths in August

As you stroll the paths of the May Bonfils Stanton Rose Garden in August you'll want to keep pencil and paper in hand to note which rose varieties you care to add to your own yard next spring. The hybrid roses are now in their second peak of blossoming for the summer. The collection at the Gardens is not just a beautiful landscaping feature. It also exists to help you make your own choices and to demonstrate cultural practices applicable to your garden at home.

Then, after you've made your evaluations, taking special notice of the many fragrances rising into the warm August air, you should pay a visit to the "other" rose beds at the far north edge of the Gardens. These are the All-America Rose Selections test beds. Here, in more austere, utilitarian surroundings, rose evaluations are being carried out in earnest.

The Gardens has been a trial site for the AARS since 1968. Each year new hopefuls are planted for a two-year evaluation period. At the end of this trial, those varieties that have been judged and found worthy are awarded one of several medals. These medal winners are usually chosen by commercial growers across the country for propagation to increase stock, then for retail introduction and sale to us, the gardening public. The remainders are, most likely, doomed to oblivion. The actual plants grown at the test sites, winners and losers, are always destroyed at the end of their test period.

The accredited test garden judge whose difficult job it will be to monitor their worth over the next two years, concurrently with the value of last year's "class" and of the new entries that will arrive in subsequent years, is Joan Franson. Though not a staff member, Mrs. Franson directs all horticultural practices for these roses in strict accordance with AARS guidelines. Regular DBG gardeners carry out her instructions.

Over 40 new varieties were planted this year. They are being judged on such characteristics as their novelty, vigor, disease resistance, stem strength, floriferousness and foliage, as well as the substance, form, color and fragrance of their flowers.

Many additional varieties were also planted this spring as replacements in the beautiful May Bonfils Stanton garden. However, as could be expected, because they are new, these won't be putting on their best display this year.

However, when you and other rose lovers return to the Gardens next year these new plants will have sufficiently recovered from their relocation to Denver and will be displaying the outstanding qualities that earned them their place in the display.

Larry Latta
Botanist-Horticulturist

Perennial Pleasures

(five sessions)
Tuesdays, August 2, 9, 16, 23, 30
7 to 9 p.m. Classroom C

With proper planning and planting, perennials can enhance any garden with long-term beauty and reduced maintenance. Discover the pleasures of perennial gardening in this five-session course that covers garden design, soil preparation and cultivation as well as a multitude of suggested plants.

Perennials for specialized situations such as shady areas will also be discussed. There will be ample opportunity for questions.

Instructor: Andrew Pierce is a horticulturist and is Assistant Director of DBG. He is an accomplished grower of perennials and alpine plants.

Fee: $40 members/$44 non-members

Photography and Botanical Illustration Field Trip

Wednesday, September 21
8:30 a.m. to 4 p.m.

This is a field trip to the historic Evans Ranch, near Evergreen, for students of photography or botanical illustration. Established in 1868, this 3,200-acre ranch has a spectacular view of Mount Evans and a lush collection of mountain wildflowers. Beginners to experts are all welcome.

Wear sturdy walking shoes and remember to bring rain gear, a sack lunch, drinking water and your own drawing materials or photography equipment.

Suggested photographic equipment consists of: Kodachrome film (ASA 25 or 64), tripod and macro-lens or three-ring lenses. Suggested drawing materials are: drawing pad and pencils, magnifying glass and watercolors or colored pencils.

Meet: promptly at 8:30 a.m. in the main DBG parking lot to carpool.

Instructors: Bob Heapes is an experienced field trip leader, nature photographer and popular lecturer. Angela Overy received her National Diploma of Design and designed in London, New York and San Francisco before settling in Denver.

Fee: $8 members/$9 non-members

Limit: 15 photographers and 15 illustrators. Please identify on the registration form which category you are most interested in.

Field Trip to Mount Goliath

Sunday, August 14
8 a.m. to 3 p.m.

Tundra flowers hold a special fascination for both amateur and professional botanists and Mount Goliath is an exceptional place to observe them. Carpets of dainty wildflowers are complemented by grand mountain vistas and the sculptured, grizzled beauty of the bristlecone pines.

Join two experienced field trip leaders and walk the M. Walter Pesman Trail, a winding 1.5-mile downhill path at 12,100 feet.

Please bring your lunch, drinking water and jacket and wear comfortable walking shoes.

Instructor: Panayoti Kelaidis is curator of the award-winning Rock Alpine Garden at DBG and is a popular and enthusiastic teacher.

Meet: promptly at 8 a.m. in the main DBG parking lot.

Fee: $15 members/$16.50 non-members. This includes Janet L. Wingate's illustrated brochure, *Wildflowers of Mount Goliath,* as well as bus transportation.

Limit: 45

Tallgrass Prairie Field Trip

Saturday, August 27
10 a.m. to 3 p.m.

Observe the best examples of tallgrass prairie along Highway 93 between Golden and Boulder. The dominant species is big bluestem but many other grasses such as switch grass, needle-and-thread, little bluestem, and side oats gramma will all be seen at their peak. Fall flora including several asters, blazing stars and goldenrods will will also be seen.

Please bring a plant identification book and a hand lens if you have them and don't forget your lunch.

Meet: Promptly at 10 a.m. 1.8 miles north of Highway 58 (Golden) on Highway 93 at the gravel road on the east side of Highway 93 by the small cottage.

Instructor: Paul D. Kilburn, Ph.D., has taught botany and ecology in Illinois and Colorado for many years.

Fee: $5 members/$5.50 non-members

Limit: 20

Learn to Draw Colorado Wildflowers

(six sessions) **Classroom B**
Tuesdays, September 6, 13, 20, 27, October 4, 11
9:30 to 11:30 a.m.

No experience necessary! In this introductory course, students will learn to make beautiful, accurate botanical drawings of some of the prettiest wild plant material found in autumn in Colorado. Fall fruits, berries, seed pods and grasses will be featured.

Participants will start to work in pencil and will eventually progress to watercolors. Please bring drawing pencils and an eraser to the first class.

Instructor: Angela Overy received her National Diploma of Design from London University, England, and designed in London, New York and San Francisco before settling in Denver. Over the years, many DBG students have found a new interest and ability in her enthusiastic classes and lectures.

Fee: $53 members/$58 non-members (includes $5 for materials)

Limit: 15

Individual Study in Botanic Drawing

(six sessions)
Tuesdays, September 6, 13, 20, 27, October 4, 11
7 to 9 p.m. **Morrison Center**

Take advantage of the glorious bounty of fall-blooming flowers at the Gardens to explore new directions in your drawings. Students may work in the media of their choice with personalized instruction. Emphasis will be placed on astute observation and precision detail work.

Some botanic drawing experience is preferred, but may be waived with the permission of the instructor. Please bring paper, pencils and other materials with which you wish to work.

Instructor: Rob Proctor is a Boettcher scholar who studied at the University of Colorado. He has held one-man shows in three countries and his botanical drawings and watercolors hang in many collections throughout the world.

Fee: $48 members/$53 non-members

Limit: 12



CLASSES

Summer
1988
Denver Botanic Gardens



Lotus, Nelumbo 'Angel Wing,' in the Aquatic Plant Display

Water Gardening Highlights

(one session)
Saturday, September 3
12:30 to 2:30 p.m.

See the waterlilies at their peak and learn about the famous hybrids of Joseph Bory LaTour and Dr. George H. Pring.

Observe the authentic blue lotus of the Nile, *Nymphaea caerulea,* the rare tropical *Nymphaea flavo-virens* from Mexico and a newly discovered white tropical waterlily from Africa.

This is a good time to have your questions answered as well as take pictures.

Meet: at the upper pool by the main fountain promptly at 12:30 p.m.

Instructor: Joe Tomocik

Fee: $8 members/$9 non-members

Night-blooming Nymphaeas

(one session)
Tuesday, September 6
8 to 9:30 p.m.

This is an opportunity to observe some notorious nocturnals. As the sun fades, see colorful and mysterious night-blooming tropical waterlilies unfold. Walk to the main pool to view the grandest waterlily of them all, the giant water platter, *Victoria.*

Specially prepared lights will illuminate the waterlily blossoms. Cultural information will be provided in the cool of the evening with time allowed for questions and photography.

Meet: at the upper pool by the main fountain promptly at 8 p.m.

Instructor: Joe Tomocik is a gardener florist II at DBG and is responsible for maintaining the Water Garden Display.

Fee: $6 members/$7 non-members

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206
Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 331-4000.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Daytime Phone _____ Evening Phone _____

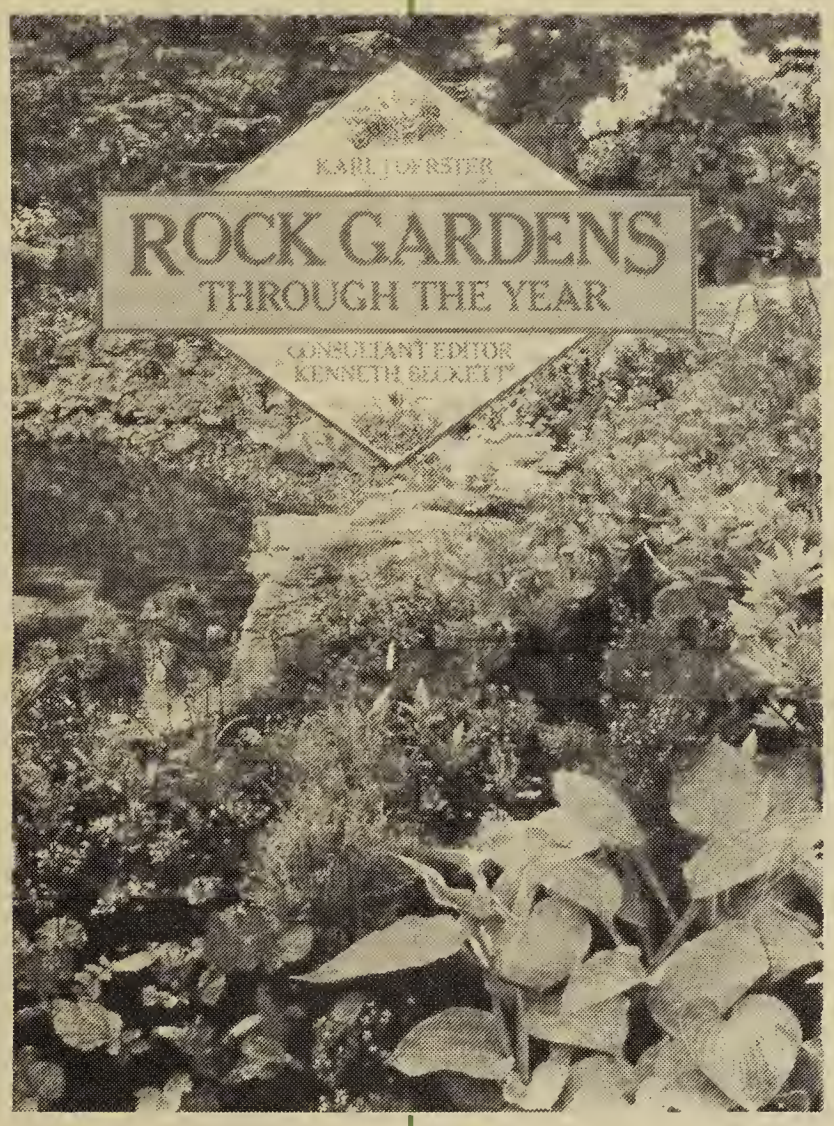
Member of Denver Botanic Gardens? ☐ Yes ☐ No

L I B R A R Y

L I N E S

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Volume 11, No. 4
August 1988

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Rock Gardens Through the Year

By Karl Foerster. Sterling Publishing Company, New York, 1987. SB 459.F6 1987. $29.95.

A hundred years ago, William Robinson and Gertrude Jekyll both wrote long books describing how to grow alpines in English gardens. A few decades later, Reginald Farrer popularized the art in a shelf-full of classic rock garden books that are largely still in print and still very much read. With these rather lofty and voluble beginnings, it's hardly any wonder that American gardeners are largely ignorant of a parallel tradition of rock gardening that has evolved in central and western Europe.

During the same decades that Robinson and Jekyll promoted the naturalistic garden in Britain, Henry Correvon established a series of botanic gardens featuring native, alpine vegetation in Switzerland, and wrote numerous guidebooks to the wildflowers as well as to their cultivation in rock gardens. By the '20s in Czechoslovakia, Karel Capek could satirize the passionate excesses of rock gardeners in a chapter of *The Gardener's Year.*

The tradition of rock gardening in German-speaking countries found its classic expression in the superlative *Rock Gardens* treatise by William Schacht, which has been reprinted many times in both German and English translations. Unfortunately, this classic by the director of the rock garden at Nymphenberg, Munich, is is currently out-of-print.

Next to Schacht, Dr. Karl Foerster's *Rock Gardens Through the Year* has been the most influential rock garden book published in central Europe. Foerster is well known for his many books written on a wide range of garden subjects. His rock garden handbook went through seven German editions before being translated and published in English this last year. The English language edition has been thoroughly revised and updated by the more eminent British authority Kenneth Beckett. The hundred and more outstanding color photographs and numerous black and white pictures that enliven the text represent the works of most of the eminent horticulturists of Germany.
continued on page 10

THE REVIEWERS:

Alcinda Cundiff—Research Associate, Dept. of EPO Biology, University of Colorado, Boulder

Panayoti Kelaidis—Curator of the DBG Rock Alpine Garden

continued from page 9

As with most rock garden handbooks, this one begins with a series of essays on different facets of establishing and maintaining a rock garden. Much of the information is useful and even valuable for Colorado gardeners, since the climate in Germany is generally more continental than most of Britain. Much of the information in these sections is general to the point of being humorous: "Old gravel-pits or quarries will sometimes make a veritable rock-garden paradise"—perhaps a bit skewed in translation, but a certain amount of truism is inevitable in any general handbook.

The alphabetically listed encyclopaedic section of rock plants is quite different from most such treatments. Each genus is introduced with the Latin name, common name (where this exists) and family name. A series of rather simple symbols provides basic cultural information (half shade, sun, wet conditions, foliage effect and fruit characteristics), and a very short expository section describes the essential features of the plant. Although rock gardeners tend to be more interested in the wild origins of plants than other horticulturists, this is the only book that makes a point of listing where every taxon that it treats originates. The text is enlivened with many inset maps showing the rather intricate distribution of many alpine plants in Europe, Asia, North America and occasionally throughout the North Temperate Zone. Plants from the Western and Southern Hemispheres figure far less prominently than their Eurasian counterparts, but even so, this attempt to illustrate the wild origins of garden plants makes this book a unique and valuable contribution to the great literature of rock gardening. I would recommend it with confidence to a beginner or advanced enthusiast.

Panayoti Kelaidis



The Country Diary Book of Creating a Butterfly Garden

By E.J.M. Warren. Henry Holt and Company, New York, 1988. QL 544.W3 1988. $19.95

Butterflies are usually not taken as seriously as the industrious honeybee. But I recently discovered that butterflies know a lot about what they are doing: Like bees, they learn how to recognize rewarding plant species and how to extract nectar from complex flowers. Some even learn locations of individual plants and sites of their nocturnal roosts. I made some of these observations in an old kitchen garden on a run-down estate in England. Now with support from government grants, I do similar work in a high-tech greenhouse, but many of my ideas still come from my garden. I'm convinced that most people would enjoy watching butterflies: Stalking and observing animals of any kind has a particular excitement.

Recognition of this has generated several books, mostly from England. This one has the best photographs and the least useful specific information for the American gardener. But it is so inspiring and the general information so worthwhile that it definitely deserves a look. Use it in conjunction with some of the books mentioned in the appendix, including *The Butterfly Gardener* by Miriam Rothschild and Clive Farrell, and "Attracting butterflies to the eastern Colorado garden," CSU Extension Bulletin No. 5.505. It works, and you may discover a whole new range of obliging plants for your garden.

Alcinda Cundiff

101 Home Landscaping Ideas for Every Shape and Size Lot

By Joel M. Lerner. HP Books, Los Angeles, 1987. SB 473 L45 1987. $9.95.

This is a book for the '80s in both the negative and positive senses: Terms such as bottom line, lifestyle needs and user appear in the scanty text but at least some of the landscape plans include wildflower areas, low maintenance lawns and butterfly gardening. The 101 ideas are in the form of specific designs for suburban houses, each design addressing a particular theme or problem: pets, privacy, formal entertaining, children, etc. There are no photographs or particular plant recommendations so it is often difficult to imagine the final result.

I'm sure there are useful ideas here for everyone, but I was not inspired. Traditional sources for landscaping ideas are British, and frequently wildly impractical, but still I miss the principles of Gertrude Jekyll, the romance of Beverly Nichols, the intellectual experimentation of Vita Sackville-West. There are even contemporary books that manage to combine practical advice with a recognition of the role a garden has in the imagination, for instance, Felicity Bryan's *A Garden for Children*.

Despite its drawbacks, this book could prove helpful in the planning phases; consult it from the library and use the money you save for extra groundcover.

Alcinda Cundiff

Successful Perennial Gardening: A Practical Guide

By Lewis and Nancy Hill. Storey Communications, Inc., Pownal, Vermont, 1988. SB 434 H5 1988. $16.95

This book brings to mind a *New Yorker* cartoon of a few years ago: A man relaxing in his easy chair is startled to hear the first robin of the spring outside his window chirping something like "Time to fertilize the grass. Sow early peas and don't forget to spray the roses." Perhaps this insistent style is inevitable in any advice book. At least in the present case we are given a wealth of material by authors who clearly have a passion for their subject. Fortunately, the energetic tone is mitigated by signs of self-doubt scattered throughout. Following a chapter of precise instructions on propagation, the authors ruefully admit that their neighbor ignores all rules, hacks away at his clumps at any season and produces thriving plants.

Since the authors live on a cold hillside in Vermont adjacent to a deer-filled wood, we can believe much of what they say. Every aspect of perennial gardening is discussed and every conceivable list is included. Indeed, one problem with the book is the attempt to cover so much—many topics receive a cursory treatment. Another problem is the lack of aesthetic appeal. But for a beginner, this book offers a value for the money.

Alcinda Cundiff

Gardening Tips for August

Penstemon virgatus is an upright plant of the dry plains with flowers in shades of lavender and blue. Picture it framed against the silvery foliage of western sage, *Artemisia tridentata*. In front of them, triangular dots of blue Western spiderwort, *Tradescantia occidentalis,* hover over the dainty light pink daisy flowers of *Erigeron divergens* and the glossy raspberry saucers of poppy mallow blossoms, *Callirhoe involucrata*. It is a picture of repose, composed of silvers, grays, greens, pinks and blues.

If this is too soft and shimmering for your tastes, and in the mid-morning sun it does shimmer, imagine another picture. Gay globes of blanket flowers, *Gaillardia aristata,* with their brilliant yellow toothed ray flowers and rusty scarlet centers dance behind fat, fiery spikes of orange paintbrush, *Castilleja integra*. They brighten a light green sward of fine bladed buffalograss, *Buchloe dactyloides*. Just behind them, to complete this picture, firecracker red funnels of *Penstemon barbatus* blossoms hang from their tall wiry stems, dancing cheerily with the passing of the slightest breeze, tempting any hummingbird within sight. This vividly colored scene is alive with excitement and action.

Both these pictures were painted with plants from the same palette, the wonderfully colorful full palette of plants native to our Colorado arid and semi-arid lands.

With these scenes in mind, here are some gardening tips of a different nature for August.

Your water-saving landscape can be full of color. Choosing perennials, shrubs and grasses from the High Plains, where the above examples were drawn from, or from dry slopes in the Rocky Mountains or from the northern or mountainous Great Basin does not limit your use of color. Beautiful hues abound in these plants, in all the colors attributable to either flowers or foliage.

You can paint your low-maintenance yard to create nearly any floral mood. Careful choice of colors in plants that you group together into scenes will establish the feeling you're after. You may even create an atmosphere of "cool" in a relatively shade-free summer landscape if that is your desire.

A landscape that uses little water for its maintenance does not have to look "dry." The deep green, finely lobed leaves of prairie mallow look nearly tropical. The fat spring green spires of June grass, *Koeleria macrantha,* are as lush as an emerald green Kentucky pasture grass that may demand three times the water to take it safely through the season. *Mentzelia decapetala* opens its large luminous white blossoms in the afternoon to release throughout the night a perfume as lovely as that of any orchid from the most humid forest.

There are those of us who love the dry prairies, deserts and canyonlands in our Western heritage, inherited or adopted. There are those of us who have yet to fall under their spell. But for each of us the wonderful plants native to these lands hold the promise of not only home landscapes that will help us conserve water but which can reflect the individuality we bring to our gardening.

There are thousands of scenes yet to be painted from this palette of tough plants, pictures large or small, grand or humble, traditional or wild, calmingly subtle or agitatingly lurid. Because each will be painted with plants of this place, each will be suitable for this place. These scenes wait only for us to picture them in our own landscapes.

Larry Latta
Botanist-Horticulturist



Evening tranquility in the Japanese Garden

CALENDAR

AUG

S	M	T	W	T	F	S
**First meeting of a class with more than one session*	1	2 Perennial Pleasures*	3	4 The Cleo Parker Robinson Dance Ensemble, Glass at the Gardens	5 The Cleo Parker Robinson Dance Ensemble, Glass at the Gardens	6 Glass at the Gardens, "Escape to the Gardens"
7 Glass at the Gardens, "Escape to the Gardens"	8	9	10 "Escape to the Gardens"	11	12	13 "Escape to the Gardens"
14 Field Trip to Mount Goliath, "Escape to the Gardens", Mushroom Fair	15	16 Herb Discovery Day	17 "Escape to the Gardens"	18 Joel Nascimento and the Brazilian Sextet	19	20 "Escape to the Gardens"
21 "Escape to the Gardens"	22	23	24 "Escape to the Gardens"	25 Santa Fe Chamber Music Festival Piano Quartet	26	27 Tallgrass Prairie Field Trip, "Escape to the Gardens"
28 "Escape to the Gardens"	29	30	31 "Escape to the Gardens"			





Coming Next Month

September 3 Denver Men's Garden Club Plant Sale	September 6 Individual Study in Botanic Drawing*	September 6 Learn to Draw Colorado Wildflowers	September 10 Plant Day for Members	September 15 Conservatory Guide Training Class*	September 21 Photography and Botanical Illustration Field Trip

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at Denver Botanic Gardens. Here is a listing of those groups and a ***general*** *indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 331-4000.*

African Violet Society, *4th Thurs. of 7 months;* ***Bonsai Society,*** *1st & 3rd Tues.;* ***Cactus & Succulent Society,*** *2nd Tues.;* ***Civic Garden Club,*** *1st Fri.;* ***Colorado Native Plant Society,*** *4th Wed.;* ***Gloxinia Gesneriad Growers,*** *1st Sat.;* ***Hemerocallis Society,*** *3rd Sun. of 4 months;* ***Ikebana International,*** *4th Fri.;* ***Iris Society,*** *spring & fall dates;* ***Men's Garden Club,*** *4th Thurs.;* ***Mycological Society,*** *2nd Mon.;* ***Rock Garden Society,*** *3rd Wed.;* ***Rose Society,*** *2nd Thurs.;* ***Ultra Violet Club,*** *4th Mon.;* ***Water Garden Society,*** *2nd Sun. of 5 months.*

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-331-4000

August 1988

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Green Thumb NEWS

Denver Botanic Gardens

September 1988

Number 88–9



Late summer in the Rock Alpine Garden can be just as enchanting as spring.

Inside:

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Conservatory Guide Training page 6

Classes page 7

New DBG Funding Source—The Cultural Facilities District

As many of you know, and as many of you do not know, there will be an election on November 8 vitally affecting Denver Botanic Gardens. At that time the voters of the six-county RTD District will be asked to approve a Cultural Facilities District that will help to finance most of the museums and performing arts groups in this six-county area of Boulder, Adams, Arapahoe, Douglas, Jefferson and Denver counties. We will be asked to approve a one-mill sales tax increase in this area.

Now, none of us really likes taxes, especially more of them, but think for a minute what an average of $.57 per person per month, which will be the average cost to each of us, will gain for us. These monies will be collected for this special district and divided by a Board of Directors from each of the counties along with three gubernatorial appointees. It is estimated that a tax of one cent on a purchase of $10 will net the district $13,000,000 in the first year. Of this amount the Gardens will receive $1.3 million or approximately 10 percent. This will go a long way toward guaranteeing our present annual budget of $2 million.

The most ever granted to ALL cultural facilities in the state was $250,000, and that money was cut off six years ago. Currently Colorado ranks 47th of 50 in terms of governmental support for cultural facilities. When we adopt this measure by voting for it on November 8, Colorado will have a unique method for helping out and stabilizing its cultural budgets.

We as DBG members must stand 100 percent behind this. We must call our friends and urge them to vote for this measure that will be so vital to the future of the Gardens. We MUST vote ourselves, for we feel that we will need 400,000 positive votes. If you have any questions about this measure, please feel free to call me. As one who has been involved with this measure from the outset, I am slightly biased towards the opportunity we have here. The Legislature was for it by passing the necessary legislation; the Governor was for it by signing it into enabling legislation; now WE must vote for it to make it a law. We will need volunteers to help with phoning toward the end. Joedy Arnold has volunteered to help with this effort. In the meantime, inform your friends and debate those who might have reservations. We vitally need your support.



Edward Connors
Former President, Board of Trustees

Members' Free Plant Day

It's "dividend time" and your annual opportunity to participate in our Members' Free Plant Day. As mentioned in last month's newsletter, the date is September 10, from 9 a.m. to 4:30 p.m., just outside the Gift Shop.

A large selection of plants has been grown in the greenhouses at DBG and during the giveaway we will provide cultural information and have on hand staff and helpful volunteers to answer questions. The format is similar to previous years, but, with some

continued on page 3

To all members of Denver Botanic Gardens:

Dear Friends,

Thanks to you and many others your Endowment Fund Drive Committee successfully met the challenge gift of one million dollars from the Boettcher Foundation. To receive the matching gift we had to raise two million dollars. For reasons that I cannot explain, people will give to brick 'n mortar more quickly and easily than to Endowment. Today, with continued budget cuts, bare-boned budgets, increased expenses etc., non-profit corporations are having a hard time making ends meet. Without a substantial endowment to provide funds from its earnings, to supplement operating expenses, many gardens aren't making it. Consequently, it is with great pride and pleasure that we are able to tell you that we raised the two million in 13 months, even when we had three years to do it. That shows your pride.

So now this little note is to our entire membership to thank you for your contributions, both in money and helping us meet the challenge. Already we feel a slight help from Endowment, and in time as the Endowment Fund grows, we will be further helped. And we need it. And all because you have pride in the "Botanic Gem of the West," our Denver Botanic Gardens. You have our everlasting gratitude.



Lawrence A. Long, Chairman
Endowment Fund Drive

Everyone really enjoyed the 1988 Concert Season. Thank you KCFR and United Bank.



Tributes

In memory of Elizabeth Mitchell Barker
Elsie W. Blackwell
Mr. & Mrs. John C. Mitchell II
In memory of Mrs. Stella Burnaby
Susan R. Hammel
D.W. & Mary Hoagland
In memory of Robert A. Green
Charla G. Cannon
In memory of Esther Holtz
Ikebana International
Sogetsu Society of Colorado
In memory of Mrs. Ross (Emma) Lahr
Harlan & Mary Clark
Mr. & Mrs. Joe Donovan
Myron & Nancy Dunn
Solange G. Gignac
Gloxinia Gesneriad Growers
Heart of America Gesneriad Society
Hi Hopes Study Club
Mary Klinger
John & Frances Nash
N.E. Otto
Stephen & Mary Jo Pahs
Kenneth & Naomi Peterson
Rocky Mtn. African Violet Council
Margaret Wallace
Ruth M. Webster
In memory of Bernice Lang
Ikebana International
In memory of Munro (Chip) Lyeth, Jr.
Mr. & Mrs. Benjamin F. Stapleton
Benjamin F. Stapleton III
In memory of John Mackenzie, Jr.
Benjamin F. Stapleton III
In memory of Ruth Nielsen
Hattie Arita
Donna Cassidy
Carol Dawson
Mary Jo Christenson
Julie Dulapa
Syd Glick
Michael Greene
Beatrice Jones
Mary Klinger
Robert Mascarenas
Judith Muller
Beverly Nilsen
C. Eugene Osborne
Andrew Pierce
Alan Rumpeltes
Richard Voeck
Hugh Wingate

Line drawings in this issue from A Guide to Denver Grasses by Janet L. Wingate.



Of Interest to Members: Programs on Channel 6

six
KRMA TV·Denver

DBG members may be interested in the following schedule of topics covered during September on Channel 6.

September 5 to 9 at 6:30 a.m.: Carefree Camping—a five-part primer on the joys of the great outdoors.

Sundays at 5 p.m.: Hometime—learn the basics of landscaping, add a decorative deck or finish a winding walkway.

Saturdays at 12:30 p.m.: Victory Garden—Bob Thompson and his master gardeners provide the latest tips on getting your garden ready for fall.

Free Day for Denver Residents

September 20 has been set aside as another free day at the Gardens for Denver residents.

Those who live within the boundaries of the City and County of Denver and who bring proof of their residency may enter without paying the regular gate fee that, for non-members, is $4.00 for adults and $2.00 for adults over 65 and for children from six through 15.

A membership in the Gardens, of course, permits entrance without charge every day.

Green Thumb News
Number 88–9 September 1988

Published monthly by the Denver Botanic Gardens education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the membership department at the above address or call 331-4000.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than August 20 for October, September 20 for November and October 20 for December.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the education department at 331-4000 for details.

Accredited by the American Association of Museums

Why Annual Giving?

Through the years, the reasons for Denver Botanic Gardens needing support have changed significantly. Today we have unbelievable opportunities to explore new horizons and meet challenges head on.

Maintaining excellence in display, education and research, and developing new programs simply requires greater support from our increasing number of members.

The Annual Fund Campaign—separate from our membership drive—is needed to meet the increasing financial needs of the Gardens.

For Denver Botanic Gardens, annual giving has made a significant difference in our ability to provide programs and the high quality of horticulture that you, our members, have come to expect from us.

That is why annual giving!

The 1988 Annual Fund Campaign will begin in September. We hope that you will wish to participate.

Day of Discovering Grasses

Grasses are not only among the most beautiful and useful of ornamental plants, they have contributed to the development of civilization to a greater extent than any other plant family. On September 27 the Gardens has planned a day full of activities to help you discover more about them.

Tours into the outdoor gardens, demonstrations and lectures are planned that will give our visitors a greater understanding of this interesting family. From wheat weaving to wheat breads, from turf lawns to garden accents—this Day of Discovering Grasses will offer new insights into their horticulture, botany and utility.

There will be no charge for these activities beyond the regular gate fee. Members, as usual, will be admitted free.



Members' Free Plant Day

continued from page 1

selections being limited, it pays to be early as they will be given on a first-come, first-served basis. Please be sure to bring the attached coupon and your current membership card to obtain your plant.

September is a great month to plant outside selections (see this month's gardening tips on page 11), but it should be completed before the end of the month so new plant roots can be established prior to winter dormancy.

Our selections for the outside "dividend" this year include the following trees and shrubs along with some perennials: chrysanthemum 'Centerpiece'; chrysanthemum 'Clara Curtis'; *Diervilla rivularis,* American bush honeysuckle; *Lonicera japonica* 'Purpurea' and 'Halliana', Hall's Japanese honeysuckle; various ornamental grasses; *Rhamnus smithii,* Smith's buckthorn; *Rudbeckia triloba,* three-leaved rudbeckia; *Santolina chamaecyparissus,* lavender cotton and *Tradescantia virginiana,* spider flower, white form.

We have considerable foliage color available among the indoor plant group and of course this helps to lighten up the interior of your home. The following will be choices:

Abutilon hybridum, flowering maple; *Begonia* × *tuberhybrida,* tuberous begonia; *Coleus thyrsoideus,* flowering bush coleus; *Eranthemum nervosum,* blue sage; *Euphorbia fulgens,* scarlet plume euphorb; *Ficus benjamina* 'Starlite', variegated benjamin fig; *Salvia leucantha,* Mexican bush sage; *Salvia rutilans,* pineapple sage.

Come and see us on Saturday, September 10, to collect your "dividend."



A Day of Discovering—learn about grasses.



Members' Free Plant Coupon

This coupon entitles you to one free plant per membership. Please complete the following information before making your selection, cut it out and exchange it for your plant on September 10.

Name _____
(as it appears on your card)

Address _____

City _____ State _____ Zip _____



1988 Summer Interns (left) Lora Beslanowitch and (right) Sharon Ratajczak



1988 Summer Interns (left) Suzanne DiGiacomo and (right) Chris D. Strand, the recipient of the Alice Mann Owen Internship



1988 Summer Interns (left) Joseph Hudak and (right) Thomas W. Van Cleef, the recipient of the Clara Van Schaak Phipps Internship

1988 College Intern Program Ended August 19

Fresh enthusiasm and bright ideas were again introduced to the Gardens when six college students began their ten-week internship in applied horticulture on June 13. Each year this Summer College Intern Program in applied horticulture welcomes students to provide practical experience in the field of horticulture in a public display garden.

The program, which was completed on August 19, offers students the opportunity to work side-by-side with our professional staff in many areas of the Gardens. Weekly field trips and lectures round out the rotating work assignments.

This year, through the generosity of the families of Alice Mann Owen and Clara Van Schaak Phipps, two internships were established in their honor. The Alice Mann Owen Internship was awarded to Chris D. Strand, and the Clara Van Schaak Phipps Internship was awarded to Thomas W. Van Cleef. We deeply appreciate the support of the Owen's and the Phipps' families. Their generous gifts help ensure the future of this important educational program.

The following were the participants in the 1988 Summer Intern Program in applied horticulture:

Lora Lynn Beslanowitch is a horticulture and landscape design student at Montana State University, Bozeman, Montana, who plans to graduate in June 1989.

Suzanne Alane DiGiacomo, Fort Lewis College, Durango, Colorado, will graduate in August 1989 with a bachelor's degree in environmental biology.

Joseph Michael Hudak is also from Montana State University in Bozeman. He will complete requirements for a bachelor's degree in horticulture in December 1989.

Sharon Ratajczak is from Front Range Community College in Westminster, Colorado. She has just graduated with an associate's degree in urban horticulture.

Chris. D. Strand, the recipient of the Alice Mann Owen Internship, will graduate in May 1989 with a bachelor's degree in environmental, population and organismic biology from the University of Colorado in Boulder.

Thomas W. Van Cleef, the recipient of the Clara Van Schaak Phipps Internship, is a horticulture student at Colorado State University, Fort Collins. Specializing in landscape and nursery management, he will graduate in December 1989.







Down the Garden Paths in September

As lovely as the outdoor gardens are in September it will be difficult to force yourself inside, but early in the month the Lobby Court display will be worth the effort to tear yourself away from a September day for a stroll indoors.

The summer season in the lobby comes to a close with an exhibition of begonias. Sporting an amazing range of leaf shapes, fuzziness and color, these plants please in whatever season they're displayed. Their unequivocally tropical appearance, however, will provide a welcome foil for the late summer scene outdoors.

Late in the month, however, the lobby will be closed to have its floor refinished. This is a continuation of the renewal begun with asbestos removal this spring.

So come in early to enjoy the begonias, then continue your outdoor walks in the clear September air.

"Botanical Treasures III" November 4, 5, 6

Once again, Turner Art Gallery in Cherry Creek and Denver Botanic Gardens will team up to provide a show and sale of botanical prints on Friday, November 4 through Sunday, November 6, from 9 a.m. to 5 p.m. Unlike past years however, "Botanical Treasures III" will be held at the Turner Art Gallery, 300 University Boulevard.

Turner Art Gallery began collecting prints for the 1988 show and sale the day the 1987 event ended. Hundreds of beautifully matted and framed and shrink-wrapped prints will be available for three days.

Prices will range from the inexpensive ($25) to the extravagant (into the thousands) with a generous selection in all categories, especially from $35 to $40.

These prints make lovely gifts for family and friends and a portion of the proceeds benefits ongoing programs at Denver Botanic Gardens. Collectors will be delighted by the wide assortment of works by well-known illustrators. Mark your calendar now for this three-day show and sale—you won't be disappointed.

David B. Grigsby Speaks to Colorado Cactus and Succulent Society

David B. Grigsby, owner of Grigsby Cactus Gardens in Vista, California, will be the speaker at the September 13 meeting of the Colorado Cactus and Succulent Society. Mr. Grigsby, a world renowned cactophile, will take society members and guests on a pictorial tour of his gardens, and they will see the many rare and unusual plants in his collection.

The slide presentation will be preceded by a short discussion regarding plants for beginners, growing techniques, soil mixes and more.

The public is encouraged to attend this special presentation on September 13 at 7:30 p.m. at Denver Botanic Gardens. For more information please call Kay Rodman, 431-6777. There is no charge to join the Colorado Cactus and Succulent Society for this interesting and educational evening.



The various opuntias in the Xeriscape Garden glow their best in early morning light.

Men's Garden Club Sale

Each year when the days start to shorten you know it's time once again for the sale by the Men's Garden Club of Denver. Members of the club grow the plants and the produce for this sale, but a portion of the profits are set aside for the benefit of the education program at Denver Botanic Gardens.

This year's sale is set for Saturday, September 3, from 9:00 a.m. to 5:00 p.m. at the Botanic Gardens House parking lot, 909 York Street. No admission fee is required to enter this part of the Gardens.

Drive by 9th Avenue and York Street the first Saturday of the month and check out their homegrown merchandise. You'll see there's nothing homegrown about its quality. Your purchase will help the Gardens.

News from the Gift Shop

Since prehistoric times man has had a fascination with amber. A product of trees living some 40 million years ago, technically amber is fossil resin. Warm to the touch, it is nevertheless light and cool to wear as jewelry.

Many pieces of amber contain small fossilized insects or pieces of plant material (called inclusions) that became entrapped in the material before it hardened. Thus, it has scientific as well as aesthetic value.

Some pieces of amber are brilliant in their luster; others emanate a cool moon glow. Its color ranges from pale lemon custard yellow to rich deep gold. Rare pieces of blue amber have also been found.

The Gift Shop at Denver Botanic Gardens carries a number of fine amber pieces. The cornerstone of the collection is a beautiful museum-quality necklace of numerous, unusually faceted pieces with extra high luster. Another necklace of opaque lemon beads of Russian amber strung with spheres of Sri Lanka silver offers a cool contrast. Either piece would be a truly special gift or could become an heirloom in your own collection.

The Gift Shop carries many other beautiful amber necklaces. Collectors would be interested in its raw amber necklace with irregular shapes.

The Gift Shop collection also includes bracelets, earrings and rings, many set in sterling silver (The contrast of silver and amber is a perfect match). A lustrous set of earrings with many inclusions flashes in the light; another, intricately carved, glows with mystery.

Miscellaneous notes: In addition to the beautiful amber pieces, the Gift Shop features fine jewelry from around the world, many pieces with botanical themes.

The shop recently received an overshipment of lovely crystal oil lamps and is offering them at a good price. They're perfect for elegant late summer patio dinners.

A large order of needle-point flower arrangers has also just arrived. Shop now if you're missing a particular size or shape. Don't forget that members of the Gardens receive a 10 percent discount on all purchases over $10.

This page: Amber necklaces glow in the Gift Shop.

Facing page: Learn about waterlilies and be entertained by curious ducks.



Conservatory Guide Training Reminder

Conservatory Guides at Denver Botanic Gardens receive training to lead groups through Denver's "Urban Jungle" in a series of classes that begins this year on September 15. After ten weeks of classes that discuss economic uses of plants, their botany and communities, and much more, they can begin to lead children and adults on excursions through the tropical setting of the Conservatory.

The classes meet weekly for two hours from 9:30 to 11:30 a.m. on Thursdays beginning September 15 and ending November 17. Guides can continue learning about the plants of the tropics through a series of continuing education classes that are scheduled throughout the year. Additionally, after 40 hours of volunteering, they are able to attend a class in the education department at no cost other than the materials fee, if applicable.

This is an active and fun volunteer group at the Gardens that meets frequently. It is a great way of making new and interesting friends while helping the Gardens meet the ever-increasing demand for tours. The registration fee is $25. To register, complete the education department registration form in this newsletter, or call the education department at 331-4000, extension 20, for more information.



This page: These visitors know how to enjoy their warm summer afternoon visit.

Facing page: The goldenrain tree, Koelreateria paniculata, displays its attractive pods for all to enjoy.

CLASSES

Fall
1988
Denver Botanic Gardens



Water Gardening Highlights

(one session)
Saturday, September 3
12:30 to 2:30 p.m.

See the waterlilies at their peak and learn about the famous hybrids of Joseph Bory LaTour and Dr. George H. Pring.

Observe the authentic blue lotus of the Nile, *Nymphaea caerulea,* the rare tropical *Nymphaea flavo-virens* from Mexico and a newly discovered white tropical waterlily from Africa.

This is a good time to have your questions answered as well as take pictures.

Meet: at the upper pool by the main fountain promptly at 12:30 p.m.

Instructor: Joe Tomocik

Fee: $8 members/$9 non-members

Night-blooming Nymphaeas

(one session)
Tuesday, September 6
8 to 9:30 p.m.

This is an opportunity to observe some notorious nocturnals. As the sun fades, see colorful and mysterious night-blooming tropical waterlilies unfold. Walk to the main pool to view the grandest waterlily of them all, the giant water platter, *Victoria*.

Specially prepared lights will illuminate the waterlily blossoms. Cultural information will be provided in the cool of the evening with time allowed for questions and photography.

Meet: at the upper pool by the main fountain promptly at 8 p.m.

Instructor: Joe Tomocik is a gardener florist II at DBG and is responsible for maintaining the Water Garden Display.

Fee: $6 members/$7 non-members

The Natural History of Aspens

(two sessions)
Wed., Sept. 21 from 6:30 to 8 p.m. in DBG's Morrison Center and Thursday, Sept. 29 field trip from 9 a.m. to noon

Have you ever wondered why certain aspen clumps are brilliant red in autumn and others are orange? What causes some aspens to sport black spots on their leaves in the summer?

Participants will learn about these and other aspects of the natural history of aspens. On a field trip to Golden Gate Canyon State Park at the peak of fall color, students will discuss what animals, mushrooms and soil/climate characteristics are associated with aspens. Find out about the interaction of beavers with these trees.

Meet: promptly at 9 a.m. September 29 in the main DBG parking lot, across from Congress Park, to carpool for the field trip. Students may choose to meet at 9:30 a.m. at the administration building/visitor center parking lot at Golden Gate Canyon State Park instead. All cars entering the park must pay a $3 admission charge in addition to the field trip free. Don't forget to bring a sack lunch and water.

Instructor: Tina Jones

Fee: $18 members/$20 non-members

Limit: 20

Tree Walk at Fairmount Cemetery, Denver

(one session)
Sunday, October 2
1:30 to 3:30 p.m.

During the summers of 1890 and 1891, over 4,000 trees including seven species of oaks, sycamores, silver maples, Kentucky coffee trees and pines were all planted at Fairmount Cemetery. This is an opportunity to observe these as well as some more unusual trees such as scarlet oak and yellow buckeye.

A walk through these mature, historic specimens will sharpen your identification skills.

Instructor: Dr. William G. Gambill, Jr., Director Emeritus and taxonomist at DBG, is a former botany and biology professor.

Meet: promptly at 1:30 just inside the entrance of Fairmount Cemetery, which is located at East Alameda and Quebec Streets in Denver.

Fee: $7.50 members/$8.25 non-members (includes $3 for *Trail of Trees,* a 64-page illustrated guide to Fairmount Cemetery.



Deciduous Shade Trees For Denver

(six sessions including field trip)
Tuesdays, Oct. 4, 11, 18, 25, Nov. 1
7:15 to 9:15 p.m. Classroom A
and field trip on Sunday, Oct. 30 from 1:30 to 4:30 p.m.

This class will acquaint students with over 60 species of shade trees well-suited to the climate of Denver. Learn about their characteristics, natural history, culture, problems and landscape value.

Through the use of slides, students will observe each of the species, with an emphasis on fall appearances. A field trip is included for a first-hand look at many of the plants discussed in class.

Instructor: Jeffrey Frank studied horticulture at Pennsylvania State University and earned a master's degree in landscape architecture from the University of Virginia. He is presently in private practice in Denver.

Fee: $45 members/$50 non-members



Autumn crocus are popping their colorful petals above ground this month.

Rare Trees for Denver

(four sessions including field trip)
Thursdays, Oct., 13, 20, 27 from 7:15 to 9:15 p.m. in Classroom C and field trip on Sun., Oct. 23, from 1:30 to 4:30 p.m.

One of the most intriguing aspects of gardening is experimenting with those plants that under normal conditions are not expected to survive in a particular region. Gardeners nationwide are consistently pushing the limits of plant hardiness, whether it be cultivating gardenias in Virginia or magnolias in Colorado.

Students will become acquainted with the characteristics of more than 40 rare shade or ornamental trees, which either escaped the awareness of the landscape industry or are considered a little too tender for Denver's harsh climate. However, under the right circumstances, especially in the older neighborhoods, seeking the uniqueness and beauty of these trees may be worth the gamble.

Instructor: Jeffrey Frank

Fee: $36 members/$40 non-members

Forcing Bulbs

(one session)
DBG's Morrison Center
Saturday, September 24
Section I: 9 to 10:30 a.m.
Section II: 11 a.m. to 12:30 p.m.

Please indicate your section on the registration form.

The process of causing spring flowering bulbs to bloom by other than naturally occurring conditions is called forcing. Learn this technique so that you can enjoy an assortment of spring blossoms while it is cold and dreary outside.

Each student will pot several types of bulbs during class to take home and can expect to enjoy them during the winter holidays.

Instructor: DBG's Education Director Pat Pachuta is a horticulturist with much teaching experience.

Fee: $14 members/$15.50 non-members (includes $8 for materials)

Limit: 15 per section

Beginning Bonsai

(four sessions)
Thursdays, Oct. 6, 13, 20, 27
7 to 9 p.m. Classroom B

This introductory course will cover the historical and cultural techniques of bonsai, the art of creating dwarf trees and shrubs. Instruction on styling, training, potting and general care of bonsai will be included.

Each student will take a completed bonsai home and all materials will be provided.

Instructors: Keith Jeppson, past president of the Rocky Mountain Bonsai Society, is an experienced bonsai hobbyist of 16 years. Harold Sasaki is a commercial bonsai grower with 18 years experience. Both are lively, capable teachers with much experience.

Fee: $54 members/$59 non-members (includes $22 for materials)

Limit: 15

Perennial Pleasures

(five sessions)
Tuesdays, Oct. 18, 25, Nov. 1, 8, 15
7 to 9 p.m.
DBG's Morrison Center

With proper planning and planting, perennials can enhance any garden with long-term beauty and reduced maintenance. Discover the pleasures of perennial gardening in this five-session course that covers garden design, soil preparation and cultivation as well as a multitude of suggested plants.

Perennials for specialized situations such as shady areas will also be discussed. There will be ample opportunity for questions.

Instructor: Andrew Pierce is a horticulturist and is Assistant Director of DBG. He is an accomplished grower of perennials and alpine plants.

Fee: $40 members/$44 non-members

Limit: 18

Know and Grow Orchids

(two sessions)
Saturdays, October 8, 15
9 a.m. to noon Classroom C

Discover the fantastic orchid family and their basic cultural requirements in this two-session course. Following an introduction to the natural and human history of the orchids, participants will learn how to develop a good collection for their homes and greenhouses.

Fundamentals of soil media, watering and fertilizer will be covered through lectures and demonstrations. Each student will have the opportunity to take a division home following a hands-on dividing and repotting session.

Instructor: Botanist-Horticulturist Larry Latta has been an orchid hobbyist for over 15 years. He has observed and collected orchids in the wilds of Ecuador, Venezuela and eastern Mexico.

Fee: $24 members/$26.50 non-members

Limit: 18





Learn to Draw Colorado Wildflowers

(six sessions) **Classroom B**
Tuesdays, September 6, 13, 20, 27, October 4, 11
9:30 to 11:30 a.m.

No experience necessary! In this introductory course, students will learn to make beautiful, accurate botanical drawings of some of the prettiest wild plant material found in autumn in Colorado. Fall fruits, berries, seed pods and grasses will be featured.

Participants will start to work in pencil and will eventually progress to watercolors. Please bring drawing pencils and an eraser to the first class.

Instructor: Angela Overy received her National Diploma of Design from London University, England, and designed in London, New York and San Francisco before settling in Denver. Over the years, many DBG students have found a new interest and ability in her enthusiastic classes and lectures.

Fee: $53 members/$58 non-members (includes $5 for materials)

Limit: 15

More Lessons in Ikebana

(four sessions)
Saturdays, October 22, 29, November 5, 12
10 a.m. to noon

DBG's Morrison Center

This course is for students who have had some previous instruction in ikebana and will include an introduction to nageire.

Please bring the following materials to class: a round or rectangular ceramic flower container (no smaller than 12 inches long and two inches deep), two needle-point flower holders (one that is two inches wide and one that is three inches wide or larger), sharp clippers, small bucket (or other container to hold flowers and water), a tall (ten inches or more) container for nageire and a notebook.

Although flowers will be provided, students should bring their own line material (branches) cut from their yards.

Instructor: Joan Wooldridge is a certified teacher of Sogetsu with instruction in the schools of Ohara and Ikenobo. She recently returned from the Fifth World International Ikebana Convention in Kyoto where she served as the official delegate from the Denver chapter.

Fee: $44 members/$47 non-members (includes $12 for flowers)

Limit: 12

Individual Study in Botanic Drawing

(six sessions)
Tuesdays, September 6, 13, 20, 27, October 4, 11
7 to 9 p.m. **Morrison Center**

Take advantage of the glorious bounty of fall-blooming flowers at the Gardens to explore new directions in your drawings. Students may work in the media of their choice with personalized instruction. Emphasis will be placed on astute observation and precision detail work.

Some botanic drawing experience is preferred, but may be waived with the permission of the instructor. Please bring paper, pencils and other materials with which you wish to work.

Instructor: Rob Proctor is a Boettcher scholar who studied at the University of Colorado. He has held one-man shows in three countries and his botanical drawings and watercolors hang in many collections throughout the world.

Fee: $48 members/$53 non-members

Limit: 12

Watercolor Painting

(five sessions)
Wednesdays, October 5, 12, 19, 26, November 2
9:30 a.m. to 12:30 p.m.

DBG's Morrison Center

Explore the sparkle and delicacy of watercolor painting while enjoying the natural setting of Denver Botanic Gardens. This course will cover the basic materials and techniques of watercolors with emphasis on the freedom of personal expression.

Come prepared with supplies. You'll need: a 1½-inch flat brush, a #10 round brush, watercolor paper, tissues, container for water, plastic palette and cake or tube watercolors.

Instructor: Lynette Swanson-O'Kane is a graduate of the Philadelphia College of Art and a professional artist with national representation of her work.

Fee: $50 members/$55 non-members

Limit: 12



Drawing classes meet frequently at DBG.

Japanese Tea Ceremony

Section X: Sunday, Sept. 11
Section XI: Saturday, Sept. 17
Section XII: Sunday, Sept. 25

(one session) 2 to 3 p.m.
Tea House in DBG's Japanese Garden

Please indicate your section on the registration form.

Because of its emphasis on such concepts as harmony, respect, purity, tranquility and elegant simplicity, the tea ceremony has for centuries been considered the epitome of Japanese life. This is an opportunity to experience an authentic tea ceremony in the quiet splendor of our Japanese Garden.

Instructor: Kathryn Kawakami has done much to inform Denver area residents and students about the culture of Japan. She will be assisted by William Crowder who studied the tea ceremony in Japan at Ura Senke.

Fee: $4.50 members/$5 non-members

Limit: 15 per section

Calligraphy: Beginning Italic

(six sessions)
Tuesdays, Oct. 4, 11, 18, 25, Nov. 1, 8
1 to 3 p.m. Classroom B

This introductory course is designed to teach students basic letter forms of the Italic alphabet, the use of proper materials, color and simple design. This is an excellent course for creating a solid foundation in calligraphy.

Please remember to bring to the first class: drawing board (at least 16 by 20 inches), a black fine point marker, pencil, eraser, ruler (18 or 24 inches), and masking tape. There will be a $5 materials fee, payable to the instructor, at the first class.

Instructor: Alicia McKim studied art at Western State College and is a freelance calligrapher whose work is exhibited widely.

Fee: $48 members/$53 non-members, in addition to the $5 materials fee that will be collected at the first meeting.

Limit: 12



Photography and Botanical Illustration Field Trip

Wednesday, September 21
8:30 a.m. to 4 p.m.

This is a field trip to the historic Evans Ranch, near Evergreen, for students of photography or botanical illustration. Established in 1868, this 3,200-acre ranch has a spectacular view of Mount Evans and a lush collection of mountain wildflowers. Beginners to experts are all welcome.

Wear sturdy walking shoes and remember to bring rain gear, a sack lunch, drinking water and your own drawing materials or photography equipment.

Suggested photographic equipment consists of: Kodachrome film (ASA 25 or 64), tripod and macro-lens or three-ring lenses. Suggested drawing materials are: drawing pad and pencils, magnifying glass and watercolors or colored pencils.

Meet: promptly at 8:30 a.m. in the main DBG parking lot to carpool.

Instructors: Bob Heapes is an experienced field trip leader, nature photographer and popular lecturer. Angela Overy received her National Diploma of Design and designed in London, New York and San Francisco before settling in Denver.

Fee: $8 members/$9 non-members

Limit: 15 photographers and 15 illustrators. Please identify on the registration form which category you are most interested in.





Denver Botanic Gardens
909 York Street
Denver, Colorado 80206
Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 331-4000.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Daytime Phone _____ Evening Phone _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

Gardening Tips for September

Any nurseryman can tell you that everyone is a gardener in the spring when any sprig of a plant with a flower will sell in the garden center. By Memorial Day the crowds begin to thin, and by summer's end gardening for most people consists of a litany of complaints: How I hate mowing the grass! Does the garden need watering again already! What am I going to do with all these zucchini? When will the first frost finally come?

Even gardeners with relatively low-maintenance gardens with native plants, perennials and ground covers have their own complaints: Why are there so few new flowers opening? Why does the garden look so tired? Now more than ever a visit to Denver Botanic Gardens might refresh your interest and enthusiasm for gardening. The first thing you are sure to notice is that there is still considerable gardening activity taking place here. As the nights cool through late summer and early fall, many plants resume active root growth. We have found that this is a wonderful time to divide plants. Newly planted divisions establish better now, with crisp nights and predictably warm days, than when cooking under the overhead sun of May and June.

During many falls, annual plants can blaze with brilliance into October, but if an untimely frost cuts them short in September, the fall perennials show their true colors. The south end of the North-South pathway comes into its full glory with a tapestry of chrysanthemums and plumbago *(Ceratostigma plumbaginoides),* a remarkable relative of thrift that forms a cartwheel of dark green leaves that stain a glowing wine color by late summer. The gentian blue flowers are produced for weeks in succession. Here it is massed formally between clipped privet hedges, but in the home garden it does best in dappled shade at the edge of a perennial border or planted over bulbs.

Along the steep south-facing bank south of the Conservatory several native perennials are reaching their peak of bloom. Prairie zinnia *(Zinnia grandiflora)* blooms longer than most annuals in the garden, and is reliably perennial provided it is given a hot enough spot and well-drained soil. It makes as colorful a carpet as marigolds, and has not yet been subjected to any diseases like the aster yellows. Fine patches of this and blackfoot daisy are also seen in the Xeriscape Garden. Another long-blooming native perennial is *Verbena ambrosifolia,* which looks quite a bit like the South American bedding verbenas, only with bright pink or purple flowers. It thrives on mineral soils in both nature and the garden.

Each year a few more unusual dwarf perennials appear in the Rock Alpine Garden. Few make a brighter impression than zauschnerias. There are five or six species in this genus that begin to bloom in July, extending their season to hard frost in early November most years. The flowers resemble fuchsias, although their color tends towards the orange end of the red spectrum. 'Solidarity Pink' is a dramatic color break recently introduced from the mountains of California, and a good albino offers contrasts to the predominant scarlets and crimsons of this showy genus of Western native plants. At its peak of bloom hardly a leaf can be seen on the silvery carpet of *Zauschneria septentrionalis,* and the many forms of *Z. californica* ranges from a few inches to a foot or more in height.

Oreganos are usually associated with the herb garden, but several decorative members of this genus are showy plants in the Rock Alpine Garden. *Origanum libanoticum* reminds most visitors of a shrimp plant as they first enter this garden from the east, producing dozens of layered, cone-like, pink-bracketed flowers over weeks in late summer. The bracts are stained lime green in *Origanum rotundifolium* from Turkey. The showiest member of this genus is *Origanum scabrum* from Greece, which forms a little bush five inches tall and seven or so inches wide whose bracts are stained a deep mauve pink.

There are true fall-blooming crocuses and colchiums here and there throughout the grounds and many other flowers that wait until the end of the season to bloom. Many people look to autumn to enjoy the colors of the berries and fruits, but the rich symphony of greens and grays that mottle the various native and wild gardens are particularly lovely in the cool of the late summer months. As the mats and cushions of the mountain plants in the Rock Alpine Garden mature, the plant itself often has architectural beauty that pleases for a much longer season than the short period of time when it is in bloom.

What a pity that so few take time to enjoy the quiet pace of autumn when nature seems to be hoarding the glory of summer. After the rush of tourists in the hot summer months, Denver Botanic Gardens is particularly inviting, cool and fresh in the autumn light. There's no waiting at garden centers this time of year, and the staff consists of the most knowledgeable, permanent salespeople. They are especially grateful for your patronage, and in our sunny, dry climate, perennials thrive as well as bulbs when planted in the autumn months. In Colorado it's a true-blue gardener who gardens this time of year.

Panayoti Kelaidis
Curator, Rock Alpine Garden



Clara Rodriguez (2½) investigates the black eyes of Sanvitalia procumbens that are looking back at her.



CALENDAR SEP

S	M	T	W	T	F	S
**First meeting of a class with more than one session*				1	2	3 Denver Men's Garden Club Plant Sale, Water Gardening Highlights
4	5	6 Night-blooming Nymphaeas, Individual Study in Botanic Drawing*	7	8	9	10 Plant Day for Members
11 Japanese Tea Ceremony X	12	13	14	15 Conservatory Guide Training Class*	16	17 Japanese Tea Ceremony XI
18	19	20 Free Day for Denver City/County Residents	21	22	23	24 Forcing Bulbs
25 Japanese Tea Ceremony XII	26	27 A Day of Discovering Grasses	28	29	30	

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at Denver Botanic Gardens. Here is a listing of those groups and a ***general*** *indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 331-4000.*

African Violet Society, *4th Thurs. of 7 months;* ***Bonsai Society,*** *1st & 3rd Tues.;* ***Cactus & Succulent Society,*** *2nd Tues.;* ***Civic Garden Club,*** *1st Fri.;* ***Colorado Native Plant Society,*** *4th Wed.;* ***Gloxinia Gesneriad Growers,*** *1st Sat.;* ***Hemerocallis Society,*** *3rd Sun. of 4 months;* ***Ikebana International,*** *4th Fri.;* ***Iris Society,*** *spring & fall dates;* ***Men's Garden Club,*** *4th Thurs.;* ***Mycological Society,*** *2nd Mon.;* ***Rock Garden Society,*** *3rd Wed.;* ***Rose Society,*** *2nd Thurs.;* ***Ultra Violet Club,*** *4th Mon.;* ***Water Garden Society,*** *2nd Sun. of 5 months.*

Coming Next Month

October 4 Calligraphy: Beginning Italics*, Deciduous Shade Trees*	October 5 Watercolor Painting* October 6 Beginning Bonsai*	October 8 Know and Grow Orchids* October 13 Rare Trees for Denver*	October 15 African Violet Sale, Free Day for Denver City/County Residents	October 18 A Day of Discovering, Perennial Pleasures*	October 19 New Member Party October 22 More Lessons in Ikebana*	October 26 Associates Annual Luncheon

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-331-4000

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TIME VALUE

September 1988

Green Thumb NEWS

Denver Botanic Gardens

October 1988

Number 88–10

"Botanical Treasures III" Hosted by Turner Art Gallery

For the third consecutive year, Denver Botanic Gardens and Turner Art Gallery will team up to provide a show and sale of outstanding botanical prints. "Botanical Treasures III" will be held on Friday, November 4, through Sunday, November 6, from 9 a.m. to 5 p.m. Unlike in the past, however, this year's event will be held at Turner Art Gallery, 300 University Boulevard.

Botanical prints are currently enjoying a tremendous resurgence in popularity. Although originally created solely for the purpose of documenting species then new to science, they are currently coveted for their striking beauty. "Botanical Treasures III" is an opportunity to discover their elegant appeal—hundreds of beautifully matted and framed or matted and shrink-wrapped prints will be displayed. Prices will range from the inexpensive ($25) to the extravagant (into the thousands) with a generous selection in all categories, particularly from $35 to $40.

Beautifully colored prints of all kinds of plants, in flower and in fruit, will make special holiday gifts. Art aficionados, plant lovers and historians are certain to treasure a present from this exhibition and a portion of the cost is tax-deductible.

The Turner Art Gallery, Cherry Creek, is the oldest art gallery in Colorado and has dealt in antique botanical prints since 1929. Today, they are recognized as the leading source of these illustrations in Colorado.

New this year is a selection of other kinds of natural history prints featuring butterflies, shells, birds and other animals.

This is the perfect opportunity to add to your current collection or purchase a special present. Plan to arrive early for the best selection.

Tenth Annual Carl Tempel Lecture to be Presented by Carol Dawson on November 1

In 1984 Denver Botanic Gardens was invited by the Center for Plant Conservation at Arnold Arboretum of Harvard University, to participate in a coordinated effort to conserve endangered plant species. In 1988 Carol Dawson, a botanist at DBG, spent the summer collecting for CPC and she will share some of her slides at the Tempel Wildflower Lecture on Tuesday, November 1 at 7:30 p.m., in John C. Mitchell II Hall.

continued on page 5



Yucca by John Hill, 1747

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Cultural Facilities District page 3

Day of Discovery—Spring Bulbs page 4



Believe-it-or-not, the 1988 Holiday Sale is almost here, November 18-19

News from the Gift Shop: Annual Holiday Sale

Mark November 18 and 19 on your calendar, because if you miss the annual Holiday Sale at Denver Botanic Gardens, you'll miss the following:

- Beautiful handcrafted Christmas wreaths
- Fragrant potpourri in decorative jars, sachets, tranquility pillows or just by itself for you to pack
- Aromatic herb vinegars made from treasured recipes and zesty herb mixtures for sauces, dips and seasonings
- Handmade Christmas ornaments for your tree
- The best darned honey by a dam site
- Books to send you to gardens around the world, plan next year's garden with, learn from, or just curl up with in a cozy spot on a cold winter night
- Baskets, silk flowers, dried flowers and plant materials for crafts
- Jewelry—amber, rose quartz, jade, sterling silver and more including many pieces with botanical themes
- A 10% discount on all purchases of $10 or more by showing your membership card
- And last, but far from least, the opportunity to give a gift to the Gardens through your purchase of a gift from the Gardens.

Don't miss this year's Holiday Sale produced and directed by the volunteers of the Associates in cooperation with the Denver Botanic Gardens Guild and ably assisted by the DBG staff.

Tributes

In memory of Elizabeth Harmon Barnwell
Martha J. Bash
Mrs. Austen Brown
Mr. & Mrs. John M. Dickson
Mr. & Mrs. Sydney Harrison
Mr. & Mrs. Hilary M. Johnson
Mr. & Mrs. Raphael Moses
Elizabeth Rendle Myer
Mrs. George Packard
Phil & Ginny Pankey
Betty & Lloyd Steinmann
David Steinmann
Judith Steinmann
Harriet T. Strong
Supreme Custom Builders
Staff at TRANSALPIN
Marion M. Vandemoer
Dorothy M. Watrous
Alan & Charline White

In memory of Marjorie Barrett
Gloria A. Falkenberg

In memory of Stella Burnaby
Bruce & Pat Paton

In memory of Leslie Finnell
Barbara K. Bailey

In memory of Mrs. Leo (Helen) Goto
Mr. & Mrs. Herbert I. Jones

In memory of Cora "Bessie" Johnson
Mr. & Mrs. Arthur Jackson

In memory of Mrs. Marguerite E. Jones
Helen M. Ackerman
Allyne Lawless

In memory of Anna Elzi Kastning
Elizabeth Heacock

In memory of Mrs. Ross (Emma) Lahr
Denver Rose Society
Ultra Violet Society

In memory of Elizabeth Lance
Catherine Lloyd

In memory of Winnifred Markley
Mr. & Mrs. John F. Falkenberg
Dr. & Mrs. Charles A. Rymer

In memory of George E. Morgenstern
Mr. & Mrs. David Hansen
Ralph C. Holmer

In memory of Wallace Munson
Mr. & Mrs. Herbert I. Jones

In memory of Ruth Nielsen
George J. Bramwell
Gloria A. Falkenberg
Larry Latta
Sondra Lobato
Gayle Weinstein

In memory of Gavin Pierce
Mary Jo Christenson
E. Sydney Glick
Beverly Nilsen
Fran Regner

In memory of Mrs. Ethel Raleigh
Allyne Lawless

In memory of William Thomas Steinmann
Elizabeth H. Bardwell
The Lloyd Steinmann Family

Associates Plan Annual Meeting and Lunch

Fall is in the air and the Associates of Denver Botanic Gardens have wrapped up another successful year of fund raising and hard work. If you are a member of the Associates, plan now to attend the Annual Meeting on Wednesday, October 26, by calling Ivy Fails at 698-2166 for reservations.

The meeting will be an opportunity to meet or renew acquaintances with other volunteers, enjoy a delicious lunch and learn more about the Gardens when Andrew Pierce, assistant director at DBG, presents the afternoon program, "Splashes of Color in 'Your' Landscape."

The business meeting will begin promptly at 10:30 a.m. Officers for the 1988-89 fiscal year will be elected, the financial report will be presented and the committee heads will report on the many activities during the past year of the various groups in the Associates.

Lunch will follow the business meeting at noon and the afternoon program is scheduled for 1 p.m. There is no charge for members of the Associates; guests are welcome at a charge of $7.50 each. Further information may be obtained from Loddie Dolinski at 753-1475.

Reminder—if you have not already reported your volunteer hours to your committee chairmen, please do so by October 15 or call Lucile Downer, 985-8031, with that information.

Green Thumb News
Number 88–10 October 1988

Published monthly by the Denver Botanic Gardens education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the membership department at the above address or call 331-4000.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than September 20 for November, October 20 for December and November 18 for January.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the education department at 331-4000 for details.

Accredited by the American Association of Museums

Support Quality— Support Excellence

Which of the following slogans makes the most sense to you?

"The smallest change can make the biggest difference."

"For pennies, you can give them (the children) something priceless."

"Arts to Zoo, Cultural Facilities District"

Hopefully, each of them has meaning and importance to you as a member of our Denver Botanic Gardens. Next month, on November 8 to be exact, those of you who are registered voters living in the current RTD District boundaries will have an opportunity to **support quality—support excellence,** not only for our Gardens, but for other important scientific, cultural and arts organizations as well.

For the Gardens the district means a reliable and predictable revenue source of $1.3 million dollars a year, beginning in 1989. Such a stable revenue source will go a long way toward allowing our professional staff to return Denver Botanic Gardens to its former high levels of quality displays and maintenance—the kind of quality and standards of excellence that earned the Gardens its coveted accreditation from the American Association of Museums in 1984.

Certainly greater utilization of our natural area sites at Mount Goliath and the Walter S. Reed property near Evergreen would result from increased and more stable funding. Development of our Chatfield Arboretum in southern Jefferson county would also be accelerated if the district is approved in November.

Expanding our educational program to incorporate more offerings for children and to make our "living museum" more meaningful in their lives would be greatly facilitated by the Cultural Facilities District. How important is it for a child to visit the Gardens and come away with a new awareness of plant/people interrelationships; to have developed a sense of wonder about the plant world? In the case of our adult visitors, if one's awareness of the global impact of tropical rainforest destruction is enhanced by a visit to our Conservatory, will that person become a more responsible citizen advocating sustainable development in the Third World?

If we are going to do our jobs well and if we have adequate resources to interpret our valuable plant collections for the benefit of our members and visitors, then we will contribute meaningful information that will make plants and their importance in our lives a subject of interest and concern to all who visit Denver Botanic Gardens.

As members of Denver Botanic Gardens, I hope I can count on you to support the Cultural Facilities District on November 8. In addition, I encourage you to return the form below and offer your name and volunteer assistance as further support. I hope, also, that you will urge your friends and neighbors to **support quality—support excellence** by pulling the lever marked "YES" for the Cultural Facilities District.

Merle M. Moore
Executive Director







Support Quality— Support Excellence

Support Quality—Support Excellence

Yes, I support the Cultural Facilities District. Please add my/our name to the list of supporters. You have my/our permission to use my/our name(s) in campaign materials.

Name _____ County _____
(Please type or print)

I would also like to volunteer in the following ways.

() Phonebank
() Speakers Bureau
() Work at Headquarters
() Special Events
() Election Day Help
() Canvassing Door-to-Door

Address _____

City _____ Zip _____ Phone _____

Please return to: Development Office
Denver Botanic Gardens
909 York Street
Denver, CO 80206.



DBG Gardener Florist II Richard Martinelli is thanked by Mayor Pena for his 20 years of service.

African Violet Sale Falls on a Free Day in October

Saturday, October 15, is going to be a busy day at the Gardens. The Rocky Mountain African Violet Council is holding its fall gesneriad sale, and the Gardens is offering free admission to all residents of the City and County of Denver.

This will be the largest plant sale of the fall season at the Gardens, with the various societies that comprise the council offering a wide range of plants from the gesneriad family.

Beautiful, blooming African violets will be the center of attraction. Starter plants of African violets, columneas, episcias and other genera will also be available, as well as mature specimens of many kinds.

Since 25 percent of the sales will be donated to the Gardens, members are urged not only to attend and purchase plants for their own collections but to encourage acquaintances who are not members. Those non-members who bring proof of their residency within the boundaries of the City and County of Denver will be admitted to the Gardens, and the sale, free.

As the gardening season winds down outdoors, now is the time to reinvigorate the indoor plant scene. African violets and other gesneriads are easy to moderately easy to care for, making them excellent houseplants, even for gardeners who do not make them their hobby. Their most outstanding feature, however, is that they really do bloom indoors.

Handouts will be available and hobbyists will be on hand at the sale to advise on the care of these plants. For more information about the sale, call 331-4000, extension 44 at the Gardens.

Thank You United Bank for the Garden Concerts!

1988 was another successful year for the Garden Concerts. Over 33,000 people enjoyed 10 evenings in the Gardens and were entertained by outstanding performing groups from around the world.

The concerts are a highlight of the summer season at the Gardens. Since 1983, United Bank has been the sponsor of the Garden Concert Series, providing volunteers as well as financial assistance.

"United Bank is a supporter of a great many cultural and arts organizations throughout the state," says Richard A. Kirk, chairman and chief executive officer of United Bank of Denver. "We are particularly pleased to be associated with this popular summer series that benefits both the Botanic Gardens and KCFR radio, two top-notch organizations. The spectacular setting of the Gardens, coupled with outstanding performances by the Paul Winter Consort and the Dimitri Pokrovsky Singers, the Dirty Dozen Brass Band and the Cleo Parker Robinson Dance Ensemble, to name a few, have established the series as one of our city's most popular summer events.

"One of the features that we, as Denver residents, can boast about is the quality of life our city has to offer," says Mr. Kirk.

"By supporting both Denver Botanic Gardens and KCFR, we help ensure that the community continues to enjoy the outstanding facilities and programs of the gardens and the unique radio experience offered by KCFR," he says.

The Gardens and KCFR wish to thank United Bank and everyone that attended the concerts for another successful season.

Day of Discovery—Spring Bulbs

Just in time to prepare for plenty of early flowers next year, October's Day of Discovery, Tuesday, the 18th, will focus on spring flowering bulbs.

"Bulbs and Buffalo Grass" is lecturer Sandy Snyder's innovative subject at noon. Through slides and informed commentary, Ms. Snyder will illustrate the planting of spring bulbs in a landscape devoted to drought-tolerant plants. President of the Rocky Mountain Chapter of the American Rock Garden Society, Ms. Snyder is a private landscape contractor who sets aside part of her time for the Rock Alpine Garden of Denver Botanic Gardens.

A 9:30 a.m. demonstration will transport your bulb-growing efforts indoors and will show you how to prepare bulbs for winter forcing. Botanical and library displays and handouts will round-out the activities for this day of special educational programming.

All activities are free. However, for non-members the regular fall/winter $3.00 gate entry fee is in effect. People over 65 are $1.50 and children six to 15 pay only $1.00.

For more information call 331-4000, extension 44.

October on Channel Six

six
KRMA TV·Denver

"Nature" premieres its seventh season as one of PBS' most popular series on Sunday, October 9, at 8 p.m. Armchair globetrotters can explore some of the earth's most exotic habitats in October. The Spanish Pyrenees, the oak forests and rolling plains of The Extremadura, the contrasting landscapes of East Africa and the pristine serenity of northwestern Montana's Glacier National Park make Sunday evenings special throughout October.

Enter a different world, the Smithsonian World, Monday, October 24, at 7 p.m. Celebrate people committed to creating museums reflecting the aspirations and accomplishments of the American people. Enjoy this kaleidoscope of music, science, aviation, history and art—a uniquely American treasure trove.

A cornucopia of planting tips, advice on soil preparation for next year's garden and suggestions for storing the harvest, kick off a new season of "The Victory Garden," Saturdays at 12:30 p.m. The best of Victory Gardens South and West, delicious seasonal vegetable dishes and the winter fun of wildlife gardening make this 10th season of "The Victory Garden" must-see viewing for the conscientious cultivator.

Carl Tempel Lecture

continued from page 1

Denver Botanic Gardens, along with 18 other public gardens including The New York Botanical Garden, Missouri Botanical Garden, Nebraska Statewide Arboretum and Desert Botanical Garden in Phoenix, was assigned responsibility to collect seeds of threatened or endangered flowers or species of special concern as part of a coordinated, national effort to preserve genetic diversity.

Kerry S. Walter, director of botany at CPC stated that "Sixty thousand species of plants may go extinct by the year 2050 globally. That will be several species an hour in the next century that will be going extinct. That's approximately one-fourth of all plants on earth at our present rate."

In 1987 the Gardens participated in its first summer of field collection for CPC obtaining 11 different species of native plants. In 1988, during the second summer, Ms. Dawson spent her weekends in the field collecting 11 species of native plants. Additionally, she has located several more to include in the field season of 1989.

Ms. Dawson has explored areas in Dinosaur National Monument, Coyote Wash in Montrose County, along the White River in Utah and on Hoosier Ridge outside Breckenridge. She has walked in on the home of midget faded rattlesnakes, crawled across a field on her stomach and inadvertantly spent the night in a dark canyon when she should have been safe in camp elsewhere. And all for the love of protecting rare and endangered flowers for future generations.

When not in the field, Ms. Dawson coordinates the Community Gardens at DBG. She gained much field experience as a student working on her master's degree in botany at Arizona State Unviersity and after college at Amoco Production in Denver where she was a palynologist. Many hours were spent in the field studying Carboniferous palynology, which is the study of fossilized pollens.

On Tuesday, November 1, at 7:30 p.m., Ms. Dawson will present a slide show, "In Search of the Kachina Daisy." She will share not only information on the plants, collecting and CPC, but some of her personal experiences that may either make you laugh or shudder. Expect slides of beautiful wildflowers with potential for landscaping or medicinal use and breathtaking scenes of less-explored areas of Colorado and Utah. She will provide unusual insights that have developed as a result of her botanical and geological background.





1988 Carl Tempel Wildflower Lecturer Carol Dawson

The Carl Tempel Wildflower Lecture Series was inaugurated in 1979 to honor the late Major General Carl W. Tempel of Fitzsimons Army Medical Center, a great photographer and wildflower enthusiast. His wife, Ruth Tempel, is a dedicated volunteer in our Gift Shop.

Admission to the lecture is without charge and all are welcome to attend "In Search of the Kachina Daisy." Spend an evening with Ms. Dawson and learn what she did during her summer—it was unique.

CLASSES

Fall
1988
Denver Botanic Gardens

Tree Walk at Fairmount Cemetery, Denver

(one session)
Sunday, October 2
1:30 to 3:30 p.m.

During the summers of 1890 and 1891, over 4,000 trees including seven species of oaks, sycamores, silver maples, Kentucky coffee trees and pines were all planted at Fairmount Cemetery. This is an opportunity to observe these as well as some more unusual trees such as scarlet oak and yellow buckeye.

A walk through these mature, historic specimens will sharpen your identification skills.

Instructor: Dr. William G. Gambill, Jr., Director Emeritus and taxonomist at DBG, is a former botany and biology professor.

Meet: promptly at 1:30 just inside the entrance of Fairmount Cemetery, which is located at East Alameda and Quebec Streets in Denver.

Fee: $7.50 members/$8.25 non-members (includes $3 for *Trail of Trees*, a 64-page illustrated guide to Fairmount Cemetery.

Rare Trees for Denver

(four sessions including field trip)
Thursdays, Oct., 13, 20, 27 from 7:15 to 9:15 p.m. in Classroom C and field trip on Sun., Oct. 23, from 1:30 to 4:30 p.m.

One of the most intriguing aspects of gardening is experimenting with those plants that under normal conditions are not expected to survive in a particular region. Gardeners nationwide are consistently pushing the limits of plant hardiness, whether it be cultivating gardenias in Virginia or magnolias in Colorado.

Students will become acquainted with the characteristics of more than 40 rare shade or ornamental trees, which either escaped the awareness of the landscape industry or are considered a little too tender for Denver's harsh climate. However, under the right circumstances, especially in the older neighborhoods, seeking the uniqueness and beauty of these trees may be worth the gamble.

Instructor: Jeffrey Frank

Fee: $36 members/$40 non-members



Deciduous Shade Trees For Denver

(six sessions including field trip)
Tuesdays, Oct. 4, 11, 18, 25, Nov. 1
7:15 to 9:15 p.m. Classroom A
and field trip on Sunday, Oct. 30 from 1:30 to 4:30 p.m.

This class will acquaint students with over 60 species of shade trees well-suited to the climate of Denver. Learn about their characteristics, natural history, culture, problems and landscape value.

Through the use of slides, students will observe each of the species, with an emphasis on fall appearances.

Instructor: Jeffrey Frank studied horticulture at Pennsylvania State University and earned a master's degree in landscape architecture from the University of Virginia. He is presently in private practice in Denver.

Fee: $45 members/$50 non-members

Know and Grow Orchids

(two sessions)
Saturdays, October 8, 15
9 a.m. to noon Classroom C

Discover the fantastic orchid family and their basic cultural requirements in this two-session course. Following an introduction to the natural and human history of the orchids, participants will learn how to develop a good collection for their homes and greenhouses.

Fundamentals of soil media, watering and fertilizer will be covered through lectures and demonstrations. Each student will have the opportunity to take a division home following a hands-on dividing and repotting session.

Instructor: Botanist-Horticulturist Larry Latta has been an orchid hobbyist for over 15 years.

Fee: $24 members/$26.50 non-members

Limit: 18





Learn how to carve unique pumpkins at our Carve-O-Lantern Party.

Children of all ages enjoy carving pumpkins at the Gardens.

Feasting on Edible Wild Plants

(two sessions)
Tuesdays, October 25, November 1
9 a.m. to noon Morrison Center

Have you ever tasted tempura milkweed or yucca flowers? How about baked cattail roots? Learn about some of the common wild edible and poisonous plants of Colorado and actually cook and sample them.

In the first session, students will learn how to identify both edible and poisonous plants in the classroom in addition to folklore and North American Indian and medicinal uses. Participants will cook and feast on these wild treats during the second session.

Bring an appetite for the morning tasting session of the second session along with a snack for lunch. Some basic botany will be covered and *Edible Native Plants of the Rocky Mountains* by H.D. Harrington is recommended.

Instructor: Tina Jones, popular field trip leader and naturalist, studied alpine ecosystems at the University of Colorado, Boulder, Research Station outside of Ward, Colorado.

Fee: $24 members/$26.50 non-members

Limit: 18

Non-Native Plants of Colorado

(two sessions)
Thursdays, Oct. 27, Nov. 3
6:30 to 9 p.m.
Morrison Center

Although sometimes referred to as natives, some of Colorado's showiest wildflowers are not of Colorado origin at all. Toadflax, chicory and the common evening primrose are a few examples. Where are they from? Just how did these non-natives arrive here?

Learn about the natural history, identification and history of some of these plants. Purple peavine, vervain, white campion, bouncing bet, horehound and gill-over-the-ground are just a few of the many plants to be covered. This class will not emphasize weed control; it will stress the adaptive strategies that non-natives have developed to survive so well in Colorado.

Instructor: Tina Jones

Fee: $20 members/$22 non-members

Limit: 25

For Parents and Children Carve-O-Lantern Party

(one session)
Saturday, October 29
Classroom B
Section I: 10 a.m. to noon
Section II: 1 to 3 p.m.

Please indicate your section on the registration form.

Celebrate Halloween by attending a pumpkin carving party. Using a special Carve-O-Lantern kit, children 8 and over and a parent will make incredible jack-o-lanterns. This is your chance to get wildly creative and turn an ordinary pumpkin into a masterpiece. Afterward, sip cider and nibble on roasted pumpkin seeds.

Please bring one or two pumpkins of any size to class.

Instructor: Tina Goldstein is a fiber artist who studied at the University of Northern Colorado. She is a champion pumpkin carver and an enthusiastic teacher.

Fee: $10 members/$11 non-members (Fee includes one parent and one child as well as one pumpkin carving kit.

Limit: 12 parents and children per section

Watercolor Painting

(five sessions)
Wednesdays, October 5, 12, 19, 26, November 2
9:30 a.m. to 12:30 p.m.

DBG's Morrison Center

Explore the sparkle and delicacy of watercolor painting while enjoying the natural setting of Denver Botanic Gardens. This course will cover the basic materials and techniques of watercolors with emphasis on the freedom of personal expression.

Come prepared with supplies. You'll need: a 1½-inch flat brush, a #10 round brush, watercolor paper, tissues, container for water, plastic palette and cake or tube watercolors.

Instructor: Lynette Swanson-O'Kane is a graduate of the Philadelphia College of Art and a professional artist with national representation of her work.

Fee: $50 members/$55 non-members

Limit: 12

Watercolor Painting

(five sessions)
Wednesdays, Oct. 26, Nov. 2, 9, 16, (skip Nov. 23), Nov. 30
7 to 9 p.m. Classroom B

Explore the sparkle and delicacy of watercolor painting while enjoying the natural setting of Denver Botanic Gardens. This course will cover the basic materials and techniques of watercolors with emphasis on the freedom of personal expression.

Come prepared with supplies. You'll need: a 1½-inch flat brush, a #10 round brush, watercolor paper, tissues, container for water, plastic palette and cake or tube watercolors.

Instructor: Lynette Swanson-O'Kane

Fee: $40 members/$44 non-members

Limit: 12

Calligraphy: Beginning Italic

(six sessions)
Tuesdays, Oct. 4, 11, 18, 25, Nov. 1, 8
1 to 3 p.m. Classroom B

This introductory course is designed to teach students basic letter forms of the Italic alphabet, the use of proper materials, color and simple design. This is an excellent course for creating a solid foundation in calligraphy.

Please remember to bring to the first class: drawing board (at least 16 by 20 inches), a black fine point marker, pencil, eraser, ruler (18 or 24 inches), and masking tape. There will be a $5 materials fee, payable to the instructor, at the first class.

Instructor: Alicia McKim studied art at Western State College and is a freelance calligrapher whose work is exhibited widely.

Fee: $48 members/$53 non-members, in addition to the $5 materials fee that will be collected at the first meeting.

Limit: 12

More Lessons in Ikebana

(four sessions)
Saturdays, October 22, 29, November 5, 12
10 a.m. to noon

DBG's Morrison Center

This course is for students who have had some previous instruction in ikebana and will include an introduction to nageire.

Please bring the following materials to class: a round or rectangular ceramic flower container (no smaller than 12 inches long and two inches deep), two needle-point flower holders (one that is two inches wide and one that is three inches wide or larger), sharp clippers, small bucket (or other container to hold flowers and water), a tall (ten inches or more) container for nageire and a notebook.

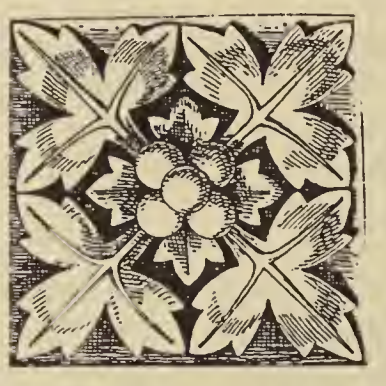
Although flowers will be provided, students should bring their own line material (branches) cut from their yards.

Instructor: Joan Wooldridge is a certified teacher of Sogetsu with instruction in the schools of Ohara and Ikenobo. She recently returned from the Fifth World International Ikebana Convention in Kyoto where she served as the official delegate from the Denver chapter.

Fee: $44 members/$47 non-members (includes $12 for flowers)

Limit: 12







Denver Botanic Gardens
909 York Street
Denver, Colorado 80206
Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 331-4000.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

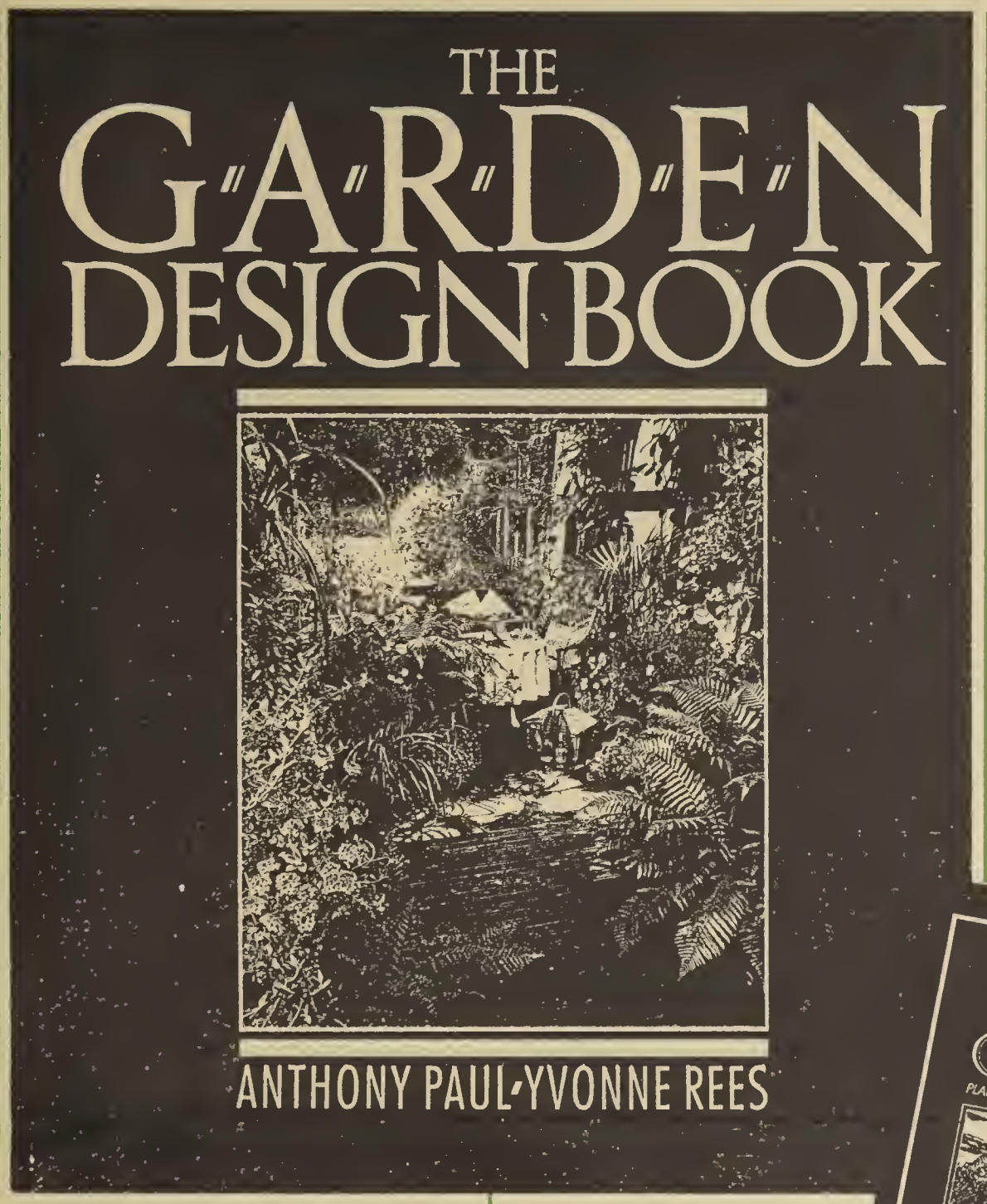
Name _____

Address _____

City _____ State _____ Zip _____

Daytime Phone _____ Evening Phone _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No



City Gardening

By Deirdre Colby. A Fireside Book published by Simon & Schuster, Inc., New York, 1987. $12.95. SB 453 C689 1987.

City Gardening takes the hesitant, novice urban gardener from fear to confidence in less than 100 pages. Author Deirdre Colby states "a great number of would-be city gardeners are intimidated by what they interpret as a new and unfamiliar set of cultivation rules. They do not recognize that the true basis for successful gardening is the same as for any kind of gardening."

Designing an urban yard becomes simplified after reading the five chapters: "The Urban Environment," "Planting, Procedures, and Maintenance," "Elements of Design," "City Styles" and "Finishing Touches." These are complemented by plant growth charts, lists of sources and a listing of books for future reading. The "Contents" page informs the

continued on page 10



The Garden Design Book

By Anthony Paul and Yvonne Rees. Salem House, Topsfield, Mass. 1988. $34.95. SB 473.P38 1988.

The authors' stated purpose in creating this book is to inspire and inform. The simplicity and beauty of the many pictures communicate this effectively. *The Garden Design Book* provides a detailed glance into the endless discovery of garden design linking horticulture, design and you.

The opening section features a visit with 15 garden designers. This takes one out of the usual do-it-yourself point of view into the creative world of the living, vibrant garden. They do it without intimidation, giving information about why arrangements are made, plants chosen and how design problems are transformed into garden themes.

The book flows into a segment on special design themes, some of which include city, cottage, rock and oriental gardens. As you might suspect, it is full of ideas. Specific detail subjects are considered. These include pergolas, walks, decks and many more. The book comes up short in its listing of plant classifications since many are not suitable to our climate, but the ideas suggested are certainly transferable. Also, details of construction are not as complete as necessary. For example, the Sunset book on masonry is much more of a resource for this subject.

This is a worthwhile book to consult and will effectively inspire. It is rare to have a glimpse into the mind of those few who have dedicated their lives to refining the practice of garden design.

Neil Canavan
Member of DBG and
Rocky Mountain Bonsai Society

LIBRARY LINES
Helen Fowler Library
Volume 11, No. 5
October 1988
Librarian:
Solange Gignac

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reader that what follows may not be "just-the-facts," but a slightly innovative approach. The book is as well designed as many of the gardens it displays.

A cursory approach will have the reader developing curiosity and a desire to redesign her garden after simply scanning the beautiful photos and reading the informative captions. The screened windows of information introduce basic facts such as planting vegetables, ordering plants and designing fragrance gardens.

Ms. Colby succeeds in introducing the gardener to the rules of cultivation by utilizing an easy-to-follow format. Subheadings include discussions on garden care, planting and troubleshooting. Additionally, the backyard of an urban residence reflects the personality of the resident and she offers the tools to design a pleasing garden. These methods are provided throughout the text, and again through the beautiful and tempting photos.

I began reviewing this book in the chapter "City Styles" and worked my way backward and forward, over and over, from that chapter. While redesigning my backyard (an ongoing process), I used this book, among others, as inspiration. And with each flip of the page I kept changing my mind and design goals. After reading through the text I found myself able to focus on a final plan. *City Gardening* is a valuable book for novice home landscapers with small urban yards, yet it will provide often-needed inspiration for seasoned gardeners planning a renovation.

Carolyn Knepp
Education Assistant at DBG





Landscape Rejuvenation, Remodeling the Home Landscape

By Bonnie Lee Appleton, Ph.D. Storey Communications, Inc., Pownal, VT. 1988. $10.95. SB473.A6 1988.

This book uses a very systematic approach to rejuvenating the home landscape. It begins with an analysis of the landscape to determine problems that may make renovation necessary. Through the use of diagrams and charts, plants are categorized to determine if they are suitable in their present condition or if they will impose future problems.

The numerous black and white photographs show many bad and some good landscapes, along with plenty of pictures showing improper care and maintenance of plant materials.

Also included is a lesson on how to develop a new landscape by drawing a base plan and applying the needs and desires of the property owner to create the final plan. The sections on how to prune, plant, ball and burlap, select plants and control weeds and pests are very useful. There are also side articles about minimizing winter damage, how to determine if plants are dead, landscaping for energy conservation, plant propagation, mail-order plants and warranties.

This book is small (131 pages), but the information is very extensive. The material is presented in a direct manner without going into a lot of detail. It is a book that should be read by property owners who want to upgrade their present landscape.

Joe Hudak
1988 Summer Intern

The Backyard Book

Tricia Foley, editor. Viking Penguin Inc., New York, New York. 1988. $24.95. SB 473 B27 1988.

If you enjoy garden tours, and if you like to see personal dreams translated into outdoor environments, you will enjoy this book. The authors of this book take the readers on a national garden tour of backyards. These yards have been created to fulfill certain roles for the owners: recreation, entertainment and relaxation.

Although there are sections at the end of the book such as "Design Details" and "Catalogs," this book is definitely not a how-to-do-it book. Instead, it is a book displaying what other people have done to create their own personal spaces. The yards are broken down into three sections on "Suburban Yards," "City Yards" and "Country Yards." Each section shows exquisite examples of casual gardens molded to fit their owners and their spaces.

The photographs in *The Backyard Book* are very good. They show individual details of the gardens very well. In fact, my only real complaint with this book is that the photographs mostly show only the details, and not enough of the whole effect of the individual yards. On entering a garden one is struck by the total visible yard first, and then by the details. But perhaps this is what separates a garden from a book.

Overall this is a good book. It can help to identify some components you may want to incorporate into your garden, and some things you may want to exclude. It is fun to see what other people around the country have created, and how they have modified their surroundings.

Michael Orlin
Helen Fowler Library Volunteer

Gardening Tips for October

By the time October comes around the glory of summer is fading in the distance, but it isn't time to think of spring yet as the first catalogs haven't arrived. However, there is still work to be done in the perennial border—most likely on one weekend of an Indian summer (an almost frost-free period occurring after the first heavy frost has killed your annuals and tops of perennials).

The first step of this fall activity is to select any plant material left on the withered stalks that can be used for dried flower arrangements. Such items as stalks of *Sedum spectabile (S. telephium)*, ornamental grasses, seed heads of Ozarks sundrop and *Baptisia australis* may catch the eye. Autumn tints still available among the foliage are odd leaves of peonies and bergenias. Perennials are not really noted for fall color.

The next step is to cut down all other frosted foliage to about three inches above the ground. This is taken off the border and usually dumped as it is too woody for the compost pile. As with most rules in the garden, there are exceptions and at no time do you cut down *Aurinia* (golden alyssum), *Iberis* (candytuft), *Phlox subulata* (creeping phlox), *Dianthus* (pinks) and *Bergenia*. These need to retain their framework or evergreen foliage for flower production. Ornamental grasses are treated much the same way.

Be careful to remove any diseased foliage or that which has been infested with insects. This is quite common on plants of bee balm *(Monarda)* and phlox but beyond powdery mildew and red spider mites perennials are relatively pest and disease free in our climate. This material should never be put on the compost heap as it will only show up again next season somewhere else in the garden.

Various stakes and supports should be removed, cleaned and stored for the winter. The last of the summer tubers and corms of dahlia and gladiolus should be out of the ground by now. Normally they are placed in a frost-free, airy place to dry off prior to their final winter storage. There is still time to plant the last of the spring flowering bulbs and corms should you wish to add them to the perennial border. Remember, we usually plant bulbs and corms at approximately four times their depth. If you plant narcissus and tulips deeper, you will not have to worry about damage to the bulb if you wish to overplant with summer annuals next spring.

Overplanting the smaller crocus, miniature iris and small tulip species is more difficult. You should select a plant that has a small root system. Sweet alyssum, portulaca and ornamental peppers are examples. Some people are traditionally against annuals in the perennial border, but if you keep away from the common geranium, petunia, salvia, zinnia and marigold, I see nothing wrong with some annuals. Using some that are more unusual may give you plants that almost look like a perennial.

There are a few plants that prefer transplanting in the fall. Foremost among these are peonies and poppies. When moving them, be sure to water them the day before so the soil clings to the roots better and you can move a larger clump. Peonies should be put back with the main buds (usually pink at this stage) just at ground level. Foliage growth will take place if



planted too deep. Some careful division can be done at this time, but just go for two or three sections. Don't cut the large fleshy roots of peonies into small pieces. Poppies are not so particular. Should you obtain other perennials at this time of the year, go ahead and plant them but check periodically over the winter to see that they are not heaved out of the ground by frost action. In Colorado most herbaceous perennials are planted in the spring.

To finally tidy up the bed, spade the area lightly, between the plants, remove the weeds and then stand back and admire your handiwork. Should the season be dry between now and the end of the year and there has been no permanent frost in the ground, you should check to see if watering is required. Certainly do it where you have planted bulbs but remember the ground has to be unfrozen.

Winter mulching with pine and spruce boughs is not done on the perennial border until January or when the ground has frozen to several inches in depth. It is used to temper the fluctuations of spring temperatures. In fact, the years when snow stays on the ground for several weeks are the best for perennials as snow is a great mulch.

Every year the DBG staff is asked about autumn crocus or meadow saffron. Botanically, they are *Colchicum* and members of the lily family, whereas *Crocus* comes from the iris family. The moment you look at their leaf and root structures, you can tell they are different. Autumn crocus has large leaves and a very swollen type of corm while crocus has fine foliage and a very neat corm. Colchicums come from Asia Minor and parts of Europe. Two of the best species among the 50 or so are *Colchicum autumnale* and *C. speciosum*. The former has been hybridized and we have some lovely double forms, particularly the cultivar Waterlily.

If you can get them and you may have to mail order through a bulb company, do plant autumn crocus this time of the year even though they may be flowering. In the early spring they will produce large leaves, three to four inches across and perhaps 14 inches long. They are a plant that does not like to be disturbed so position them for the future. They prefer full sun although they will tolerate a little shade. Should you want to divide a clump, do it when the foliage has died down in early summer. At that time you may find a few cormels, or secondary corms, on the side of the main root system that you can use for propagating as well.

Remember, beautiful though they are, colchicum does give us the narcotic poison colchicine, which is used medicinally and genetically in plant breeding.

Finally, a few fall items:

If you have planted a young tree this year, see that it is wrapped to prevent sunscald on the trunk during winter. DBG's library, your extension agent and favorite nursery can provide directions on how to wrap a tree.

Don't be too shy to ask the local park people if you can have some leaves for your vegetable garden or pine needles for mulching around your roses, but you may have to rake them yourself!

Stock up on sand and get the snow shovel ready and have a happy Colorado fall!

Andrew Pierce
Denver Botanic Gardens
Assistant Director

CALENDAR OCT

S	M	T	W	T	F	S
						1
2 Tree Walk at Fairmount Cemetery	3	4 Calligraphy: Beginning Italic*, Deciduous Shade Trees*	5	6 Beginning Bonsai*	7	8 Know and Grow Orchids*
9	10	11	12	13 Rare Trees for Denver*	14	15 African Violet Sale, Free Day for Denver City/County Residents
16	17	18 Perennial Pleasures*, A Day of Discovery—Spring Bulbs	19 New Member Party	20	21	22 More Lessons in Ikebana*
23	24	25 Feasting on Edible Wild Plants*	26 Associates Annual Luncheon, Watercolor Painting*	27 Non-Native Plants of Colorado*	28	29 Carve-O-Lantern Party
30	31	**Coming Next Month**	November 1 Carl Tempel Wildflower Lecture	November 8 Election Day, Free Day for Denver City/County Residents	November 18-19 Annual Holiday Sale	November 24 Thanksgiving—DBG is open!

**First meeting of a class with more than one session*

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at Denver Botanic Gardens. Here is a listing of those groups and a ***general*** *indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 331-4000.*

African Violet Society, *4th Thurs. of 7 months;* ***Bonsai Society,*** *1st & 3rd Tues.;* ***Cactus & Succulent Society,*** *2nd Tues.;* ***Civic Garden Club,*** *1st Fri.;* ***Colorado Native Plant Society,*** *4th Wed.;* ***Gloxinia Gesneriad Growers,*** *1st Sat.;* ***Hemerocallis Society,*** *3rd Sun. of 4 months;* ***Ikebana International,*** *4th Fri.;* ***Iris Society,*** *spring & fall dates;* ***Men's Garden Club,*** *4th Thurs.;* ***Mycological Society,*** *2nd Mon.;* ***Rock Garden Society,*** *3rd Wed.;* ***Rose Society,*** *2nd Thurs.;* ***Ultra Violet Club,*** *4th Mon.;* ***Water Garden Society,*** *2nd Sun. of 5 months.*

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-331-4000

Address correction requested

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Green Thumb NEWS

Denver Botanic Gardens
November 1988
Number 88–11



"Botanical Treasures III" at Turner Art Gallery on November 4, 5 & 6

Discover for yourself the elegance of botanical illustrations when Turner Art Gallery and Denver Botanic Gardens combine resources to offer "Botanical Treasures III: A Show and Sale of Botanical Illustrations." This exhibit of choice historical and contemporary prints has been very popular for the past two years and will be presented again this year on November 4, 5 and 6 from 9 a.m. until 5 p.m.

Rather than being held at the Gardens, the show and sale will take place at the Turner Art Gallery, 300 University Boulevard, in Cherry Creek. Ample parking will be available across the street to the west. Watch for signs.

Botanical prints have become coveted collectibles for various reasons. Most simply stated, however, it may be that their popularity is a result of their availability and quiet elegance.

In addition to the wonderful selection of botanical prints, this year collectors can purchase from a wide selection of other natural history prints. Hundreds of beautifully matted and framed or matted and shrink-wrapped prints will be available in a wide range of prices.

Don't miss out on this unique opportunity to add to your current collection or do some early holiday shopping.

Don't Miss the Holiday Sale November 18 and 19

Clues to the coming of Denver Botanic Gardens' annual Holiday Sale are: Your chestnuts are roasting over an open fire, Jack Frost is nipping at your nose, and the entire basement of Denver Botanic Gardens is redolent with the fragrance of potpourri. All the signs are present and pointing to the arrival of the Holiday Sale!

November 18 and 19 are the 1988 dates of this annual holiday tradition. John C. Mitchell II Hall, the gift shop and lobby court will again overflow with gift selections and decorations for the home from 9:30 a.m. to 4:30 p.m. both days.

The Holiday Sale is a collective enterprise of several volunteer groups affiliated with Denver Botanic Gardens. Many shoppers associate it with the varied blends of herbal vinegars made by the members of the Denver Botanic Gardens Guild.

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Blossoms of Light page 3

Victorian Gardens page 5

More on Annual Holiday Sale page 7

Butterflies by G.B. Sowerby, 1880



Members of the DBG staff prepare the latest Lobby Court display.

Down the Garden Paths in November

Increasingly, the garden path leads indoors in November. Echoing the brilliant display earlier in the outdoor season, chrysanthemums return this month to brighten the scene in the lobby court.

If you missed these favorite garden perennials in September, be sure to catch them in their lobby setting. Arranged with complementary foliage plants from the Gardens' greenhouses they'll help your spirits continue to glow with the feeling of autumn as the year slides deeper toward (shudder) winter.

Home landscapers, however, will want to persevere along the trails among the outdoor plantings to note those plants that still retain significant foliage, floral color or interesting fruit. Our quest should be to identify subjects we can add to extend seasonal interest in our own yards.

Denver Botanic Gardens offers effective horticultural vistas every day of the year, whatever the weather or season. This is no accident. It's due to the amazing range of landscape plant material. Regular strolls "down the garden paths" to notice what's currently affecting the scene at 1005 York Street can help you transform your own landscape into a four-season garden too.

Tributes

In honor of Mrs. Thomas Knowles
Mr. & Mrs. Thomas E. Taplin
In honor of Dr. Seymour E. Wheelock
Mr. & Mrs. Thomas E. Taplin
In memory of Elizabeth Harmon Bardwell
Mr. & Mrs. Richard Bode
Dr. & Mrs. Frank Cenkovich
Dr. & Mrs. Robert Chapman
Dr. & Mrs. John Chisholm
Dr. & Mrs. Henry Cleveland
Mr. & Mrs. Laurence S. Donovan
Harriet S. Lee
Mr. & Mrs. Richard E. Pate, Jr.
Mr. & Mrs. William Sandberg
Lucy and Eaton Smith
Mrs. Marjorie Vail
In memory of Mary (Pat) Gildersleeve
Virginia & Ed Morey
In memory of Mrs. Ross (Emma)Lahr
Mr. & Mrs. Richard M. Millard
In memory of Mrs. Elizabeth Lance
Bill & Eleanor Cabana
Christene Kelly
Arlene Lance
Mrs. Christene Ruff
In memory of Velma Ward Majempsey
Marilyn Ward Chittenden
In memory of Winnifred L. Markley
Dr. & Mrs. Horace A. Brayshaw
Mary Lou Kidder
Esther L. Witte
In memory of Priscilla Kountze McGinnis
Hughes and Company
Mr. & Mrs. Harold Kountze, Jr.
In memory of J. Kernan Weckbaugh
Mrs. Harriett L. Rydstrom

Tenth Annual Carl Tempel Wildflower Lecture on November 1

In the October *Green Thumb News* you read about the Tempel Wildflower Lecture to be given by Carol Dawson. Don't forget that this will be presented very early this month and if you're not careful it could sneak past before you know it.

On Tuesday, November 1, at 7:30 p.m., in John C. Mitchell II Hall, botanist and Community Gardens Coordinator Carol Dawson will share her summer of plant collecting experiences.

In her program "In Search of the Kachina Daisy" she will discuss her attempts to locate rare and endangered plants of Colorado and some locations in Utah. Travel vicariously with her and her companions. You may gain a new appreciation for the value of these plants that are disappearing from our genetic pool. You may also appreciate the efforts involved in locating them.

The Annual Carl Tempel Wildflower Lecture was started in 1979 to honor the late Major General Carl W. Tempel of Fitzsimons Medical Center, who was a great photographer and wildflower enthusiast. The program is without charge and all are encouraged to attend.

Green Thumb News
Number 88–11 November 1988

Published monthly by the Denver Botanic Gardens education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the membership department at the above address or call 331-4000.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than October 20 for December, November 18 for January and December 19 for February.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the education department at 331-4000 for details.

Accredited by the American Association of Museums

"Blossoms of Light—A Winter Wonderland"

This year's "Blossoms of Light" holiday celebration is sponsored by WearEver-ProctorSilex, Inc. and is guaranteed to put you in the holiday spirit. Come to the Gardens and escape from the hassles of the holiday season and relax in Denver's own "Winter Wonderland." There are so many activities planned for "Blossoms of Light" you will have a difficult time deciding which ones to attend—come to them all!

The theme "Winter Wonderland" will be reflected in all the events throughout the month. Activities start on Saturday, December 3, with a Quilt Show and Sale. From 10:00 a.m. to 4:45 p.m. you can see antique, traditional and modern quilts in John C. Mitchell II Hall that will make you want to add another item to your Christmas wish list.



Also starting on December 3 and continuing through December 30, you can enjoy the festive and special holiday decorations that will transform the Gardens into a "Winter Wonderland." John C. Mitchell II Hall will be alive with displays of miniatures, dolls and toys from the private collection of Bets O'Meara. They will inspire as well as invoke memories of holiday dreams in all. The staff of the Gardens and members of United Floral Industries will turn the lobby court into an old-fashioned winter wonderland with colorfully decorated trees, an "ice-covered" pond and other decorations.

True to the name "Blossoms of Light," the Gardens will again blossom in December. This year we have expanded the areas lit and we promise, you won't have to imagine being in a winter wonderland—you will be in one. For the first time, the conservatory and Marnie's Pavilion will be filled with blossoms of light that, when combined with the outside displays, will cause the Gardens to glow with over 10,000 miniature lights.



We are so proud of the light displays that we want to make sure everyone has a chance to visit the Gardens in the evening. We will be open until 8:00 p.m. on Wednesdays, December 14 and 21, throughout the week between Christmas and New Year's and, as last year, after the High Teas and Teddy Bear Teas. As an added feature to the Wednesday evenings, there will be special Christmas musical performances and strolling carolers. On December 14 the Botticelli String Quartet and on December 21 the Aries Brass Quintet will perform.

For all those looking to that holiday gift for friends or family with a green thumb, a Christmas cactus or miniature holly tree would be the perfect solution. They will be for sale during extended hours and at the High and Teddy Bear Teas as long as our supply lasts.

The High Teas and Teddy Bear Teas are fast becoming holiday traditions in Denver. The Sunday High Teas in John C. Mitchell II Hall December 11 and 18 will offer traditional menus enticing you with pasties and pastries, raspberry preserves, Devon cream and scones, English cheeses and tea sandwiches, petits fours and of course Earl Grey, Darjeeling and herbal teas. Seasonal choral and instrumental music will accompany each High Tea. There are three seatings each day. Tickets are $15 and must be ordered in advance.

The Teddy Bear Teas sponsored by Celestial Seasonings, Inc. were so well received last year that we have added another day. For two Saturdays, December 10 and 17, enjoy herbal teas and a modified High Tea menu. It is an excellent chance to see the magic of the holidays reflected in the eyes of the children dressed in their holiday finest, receiving special gifts from Celestial Seasonings, Inc. and enjoying marionette shows by Judy Pankratz. There are two seatings each day. Tickets are $8 and must be ordered in advance.

Because all teas were sold out last year we urge you to order your tickets now. Complete and mail the reservation form on the enclosed flyer and assure yourself the chance to partake in this special and delightful holiday celebration at the Gardens. Please call the Gardens, 331-4000, if the form is not enclosed, and a replacement will be sent.

Since there are so many holiday activities going on in the Gardens and some of them are new this year, attach the enclosed flyer or the following schedule to your bulletin board or refrigerator so you won't miss your chance to escape to Denver's own "Winter Wonderland" during the "Blossoms of Light" holiday celebration this December.

"Blossoms of Light" Activities

Dec. 3-30	Winter Wonderland
Dec. 3	Quilt Show & Sale
Dec. 10 & 17	Teddy Bear Teas
Dec. 11 & 18	High Teas
Dec. 14	Botticelli String Quartet
Dec. 21	Aries Brass Quintet
Dec. 26-30	Evening Hours

Members' Holiday Party in December

"Heralding the Season," our annual holiday for members of the Gardens, will be held December 9 from 7 to 9 p.m. Look for your reservation form in the mail by mid-November.

Mr. Arnold Dreyfuss, Chairman and Chief Executive Officer of WearEver-ProctorSilex, Inc. Denver Botanic Gardens wishes to extend sincere appreciation to WearEver-ProctorSilex, Inc., sponsors of the 1988 "Blossoms of Light."



This page: "Sophisticated Rhythm," a prizewinner in last year's Rose Bowl Parade.

Facing page: Victorian plant stand by J.S. Ingram (photo circulated by the Smithsonian Institution Traveling Exhibition Service)

Great Getaways—The Rose Bowl and Parade Await You.

Go behind-the-scenes in Pasadena on December 29 and see the actual finishing touches applied to the Rose Parade floats.

This rare experience is part of a special tour being offered by Denver Botanic Gardens December 29 to January 2 or 3. In addition to the Rose Bowl festivities and its floral creations, there will be museums to see and a tour of Universal Studios.

You will leave Denver early on December 29 and, depending upon the options selected, will return either January 2 or 3.

On December 29, after a visit to the J. Paul Getty Museum that re-creates a villa of unequalled elegance, you will visit C.E. Bent and Sons, a professional float-building company. They will create most of the Rose Parade entries. You may even get to help by placing a few flowers on the display while you observe them completing the floats with the last, special finishing touches.

Visit Huntington Library, Art Collections and Botanical Gardens on Friday. Their world-renowned Desert Garden is spectacular and their galleries include collections of art that will surprise you. Later in the day enjoy the privilege of a private, escorted tour of the Norton Simon Museum.

Wake up on New Year's Eve morning and mingle with the stars. Another behind-the-scenes tour, this one of Universal Studios, lets you gain some insight into the production of movies and television shows. Then it's back to Pasadena to the annual Band Fest. This is a competition of enthusiastic college and high school marching bands from all over the country.

Spend New Year's Eve with new friends at the Embassy Suites Hotel and ring in 1989.

On Sunday visit the float-staging area and observe the judging and award ceremonies. Monday, January 2, is the big day. You can observe the Rose Parade from specially reserved seats. Watch for "your" floats from C.E. Bent and Sons. Dozens of beautiful floats, each completely covered with floral materials, and 200 marching bands will pass by your own personal review seats.

Football fans need not miss out! Tickets are available.

Your options include returning to Denver Monday evening, or remaining to soak up some of southern California's sunshine and return on Tuesday.

For details, call Andrew Pierce at Denver Botanic Gardens, 331-4000 extension 18, or Travel Associates at 759-4666. You may have enjoyed the Rose Parade in the past, and you've probably read about the production of the extravagant floats, but now you can go behind-the-scenes for a special, first-hand experience.

Free Day on November 8

The sixth free day of the year for Denver residents will be Tuesday, November 8, Election Day.

Visitors to the Gardens who are not members but who bring proof that they reside within the City and County of Denver will be admitted free. Except for members, all other visitors will be charged the regular fall-spring gate fee of $3.00 for adults and $1.00 for children from six to 16 and $1.50 for senior citizens 65 and over.

Of Interest to Members: Programs on Channel 6

Travel to the paradise of the Hawaiian Islands and explore the mysteries and the marvels of the land "Down Under."

Sunday evenings at 8, NATURE examines the fascinations of our world. On November 6 "Hawaii: Island of the Fire Goddess," shows some of the extraordinary diversity of plant and animal life in America's 50th state. A special six-part trek through "Australia: Portrait of the Island Continent," begins November 13.

NOVA travels to one of the earth's most threatened habitats, the rain forest, Tuesday, November 8, at 7 p.m. Visit a tribe of Ecuadorian Indians who still maintain traditions of ages past.

"Victorian Gardens: A Horticultural Extravaganza"

Have you recently purchased a Victorian-style home in the metropolitan area? Is it an older house? Is it a newer house designed after some of the elegant homes of our past? Or do you just enjoy landscaping your yard with plants and accents from the 1800s?

If you answer "yes" to any of the above, or if you're intrigued by certain aspects of the 1800s and you're a history buff, you'll be interested in the exhibit Denver Botanic Gardens will host January 28 through February 15, 1989.

"Victorian Gardens: A Horticultural Extravaganza," a traveling exhibit from the Smithsonian Institution,



comes to DBG's John C. Mitchell II Hall on January 28. This grand display will transform the hall and lobby court of the Gardens into an educational trip into the past. Plants representative of this time will decorate both areas.

Many similarities can be observed between Victorian plants, used both inside and outside, and our contemporary plants. Along with exotic plants, Victorians introduced new uses for flowers. Because they were becoming a society with leisure time, they began to create floral arrangements and wreaths, tussy mussies, window and cutting gardens, and elaborate garden designs. They created "Wardian cases," which are similar to the contemporary terrariums, and they made popular small conservatories. All of these will serve to accent the educational photo panels that are the focus of the exhibit.

The Smithsonian Institution assembled this exhibit to demonstrate that the Victorians used exotic plants in their gardens in colorful, well-organized, uncluttered and magnificent gardens.

Classes, workshops and demonstrations have been designed to complement the exhibit. Members of Denver Botanic Gardens and their guests will delight in observing the similarities as well as some of the eccentricities of the time. Perhaps new gardening interests will be "rekindled."

There is no fee to enter the exhibit, only the non-member gate fee will be charged upon admission to the Gardens. Additional information on classes, workshops and demonstrations will appear in upcoming issues of the *Green Thumb News*.

From bouquets and boutonnieres, parks and cemeteries, hair wreaths and wax flowers to the great expositions, horticulture found its way into many aspects of American middle-class culture: on the person, in the home and garden. "Victorian Gardens" presents illustrations and examples of this popular phenomenon. And just as the Americans of the Victorian time used their extra leisure time to escape the smoke-laden environments of the Industrial Revolution, contemporary Americans look to gardening for similar reasons. Enjoy "Victorian Gardens" at Denver Botanic Gardens and leave with new inspirations.

Double Your Gift to the Gardens

Do you know if your company has a matching gift program? If yes, you may double or triple your gift to the Gardens. Check with your personnel office!

The following is a partial list of companies that have matching gift programs. Send in their completed matching gift form and we'll do the rest.

AT&T
American Brands, Inc.
American Express Co.
Armco, Inc.
Atlantic Richfield Co.
Avon Products, Inc.
Brown Group, Inc.
Brunswick Corp.
Butler Manufacturing Co.
CBS Inc.
Caterpillar Inc.
Chemical Bank
Chevron Corp.
Chubb Life Ins. Co. of America
Chubb & Son, Inc.
Citicorp/Citibank
The Coca-Cola Co.
Deluxe Check Printers, Inc.
Digital Equipment Corp.
Dow Corning Corp.
Equitable Life Assurance Society of the United States
Exxon Corp.
Fireman's Fund Insurance Co.
Fluor Corp.
Gannett Foundation
General Cinema Corp.
Gulf + Western Inc.
International Business Machines
Johnson & Higgins
Kmart Corp.
Koppers Co., Inc.
Martin Marietta Corp.
The May Dept. Stores Co.
McDonald's Corp.
McGraw-Hill, Inc.
Mobil Oil Corp.
Monsanto Co.
Montgomery Ward & Co.
MONY Financial Services
Mutual of America
NCR Corp.
R.J.R. Nabisco, Inc.
PPG Industries, Inc.
PepsiCo, Inc.
Philip Morris Companies, Inc.
Ralston Purina Co.
Security Pacific Corp.
Stanadyne, Inc.
The Standard Oil Co.
State Mutual Life Assurance Co. of America
TRW Inc.
Time Inc.
Times Mirror
Transamerica Corp.
The Travelers Corp.
US West, Inc.
Union Pacific Corp.
United Bank of Denver
United Parcel Service
Westinghouse Electric Corp.

Holiday Sale

continued from page 1

An organization formed to benefit DBG's Herb Garden, its members in prior years have brewed vinegars featuring tarragon and opal basil as well as secret herbal blends. A new flavor has been hinted at for 1988. Also new this year will be potted herb plants to bring a taste of summer to your cooking through the winter. And, as in the past, dried herb mixtures for seasoning will be offered as well as other culinary aids designed to introduce you to the wonderful world of cooking with herbs.

The volunteers at Chatfield Arboretum will again be offering jars of honey gathered from Chatfield's own apiary. Unlike the highly processed honey offered in grocery stores, which has been heated and force-filtered, this honey is gently warmed and strained. The Chatfield bees (25 colonies strong) are highly productive and gentle as a result of careful hybridization of the queens by the beekeepers.

Volunteer Mary Jump assists at last year's Holiday Sale.

And what a wealth of botanical riches they have to choose from on their flights! Some of the native wildflowers and flowering shrubs from which the bees gather nectar include yellow sweet clover, many varieties of penstemon, wild roses, cinquefoil, sunflowers, alfalfa, thistle and chokecherries. Each batch of honey contains subtle variations in color and flavor, which reflect the particular mix that the bees have chosen.

In addition to offering the honey in pint jars, Chatfield Arboretum volunteers will also be selling comb honey by the frame. Look for their tables in Mitchell Hall.

The Holiday Sale is famous for its craft products produced by Avalonne Kosanke's tireless corps of workers. All summer the volunteers gathered and dried rose petals for potpourri, which were mixed and blended with spices and essential oils using old recipes.

Potpourri volunteers Gilberta Zwigart (foregound) and Ellen Swanson

The finished product is offered in glass jars to show off the colors or stitched into sachets and tranquility pillows. Those desiring to make their own sachets may buy it in bulk or, for the really talented among you, all the necessary ingredients to make your own potpourri will be offered for sale individually.

Other volunteers have produced fragrant mixtures for culinary use. Dip-dillicious will again be offered as well as the specially blended herbal salts. Two salt-free varieties will also be available—one for meat and one for vegetables.

Across the hall the craft workers in cheerful Christmas aprons will be selling their handmade wreaths,



Christmas ornaments and home decorations.

The wreaths will feature traditional as well as contemporary motifs and are made from a variety of botanical materials. Past tree ornaments have included charming birds in nests, teddy bears, miniature wreaths and angels as well as contemporary abstract pieces. Expect to find a mixture of old favorites and new introductions this year.

If the display of craft items inspires you to create your own wreaths and decorations, the Denver Botanic Gardens' outdoor volunteers will be offering dried plant materials carefully tended through the summer, and cut just at the peak of perfection to be dried and stored for the sale.

Books are favorite gift items and the gift shop will again feature its exceptional selection of books with botanical themes. Look for these in the center of John C. Mitchell II Hall. Treasures to look for include Lady



Bird Johnson's book on wildflowers, *Wildflowers Across America,* and the new edition of *Meet the Natives.*

If the fragrances of herbs and potpourri stimulate your creative side, there will be several books available on herb gardening and planning and growing a scented garden, as well as drying and using the end products. The beautiful illustrations of these books are as satisfying as the reading material.

Are you looking for stocking stuffers for an avid book collector on your list? You might pick up the wildflower-illustrated book-borrower record. The borrower receives a coupon to use as a bookmark that later prods the memory as to who the book was borrowed from. And you have a stub reminding you to whom the book was lent.

For the children on your gift list, there is an excellent selection of books by children's authors such as Tasha Tudor. In addition to children's books, the sale annually features two tables of unusual and clever gifts just for children. Adults will be allowed at these tables, but they might have a difficult time fighting their way through the pint-sized patrons in the children's corner.

Last but never least, who does gifts better than the gift shop? Maybe nobody. The assortment of goodies they have arrayed for the sale is too long to include here, but look for wind chimes in many styles and tones, ornamental china with fruit and flower themes, clever baskets, kaleidoscopes, crystal oil lamps and much, much more.

And don't forget that gifts (for yourself, friends or family) purchased at this sale help support the Gardens throughout the year.

Members' Discount: Members of Denver Botanic Gardens should take advantage of the 10 percent members' discount on purchases totaling $10 (pre-discount and taxes) or more. This is the first sale that the discount has been in effect, so don't miss this money-saving opportunity. Please be sure to bring your membership card to show the cash-register volunteers. Also, note that separate check-out tables will be provided for members to facilitate the process. These will be clearly marked with signs.

There's only one more thing to say about the sale—Don't miss it!

A Sampling of Holiday Sale Gift Items















Facing page: Clematis 'Nelly Mour' by Rob Proctor

Bromeliad wreath

This page: Emerson R. Birchfield tried to buy everything in sight at the 1988 Plant and Used Book Sale.

Emerson R. Birchfield on a Summer Past

I am tempted to say I was "blown away" by "The Flowering of Denver," the Plant and Used Book Sale last May, but I will resist. I would like to forget the howling winds, but if anyone found my favorite straw hat, last seen sailing high over Cheesman Park, please let me know.

Weather aside, let me thank Chairman Jeanne Ruggles and her dauntless crew for providing so many wonderful temptations, to which nearly all I succumbed. I left the sale immensely satisfied, considerably poorer and eminently relieved that I've never been vain enough to get a toupee.

Gardeners are a funny lot—most of us defy weather the year-round, and would rather wear a gunny sack than pass up a chance to buy *Hosta gracillima* or Japanese painted fern. I suppose I should be content growing a common plant to perfection (not that I ever have, mind you, save for a buffalobur that seeded itself in the herb garden and was glorious). After all, if a particular plant is flourishing in every garden on the block, you can be assured I have moved mine to less and less favorable spots until it is the most miserable specimen in the neighborhood, or dead. I simply had to make room for a stupendous something-or-other.

I do not advocate relocating a favorite rose just for the sake of trying something new, or to grow anything just because it is rare, or simply because the gardener can afford it. On the other hand, if your mildewed old 'Garden Party' rose is still there by virtue of the fact that it has not yet died, dig it out posthaste. If a new plant will enrich your garden and bring joy, then that is reason enough.

A garden reveals the personality of the gardener. Pretty ones are not made by sitting in the shade. A glorious garden will likely be the product of an open mind and sensitive soul. I am inclined to believe experimentation is the mother of excellence.

It is the timid gardener, indeed, who did not try a new annual or two this year. The investment was paltry and the awards enormous. I adore the entire gomphrena clan, and Strawberry Fields, with its red clover-like flowers, was fabulous. A variation on that old favorite 'Southern Cross' ageratum produced white centers in the familiar lavender-blue clusters—the effect especially soft and lovely. I was astounded by the bright pink larkspur. Being able to obtain so many annuals in single colors was quite a blessing in itself, and the color of these was exceptional—glowing pink with a hint of crushed raspberries. Speaking of color, if there is a more intense blue flower than phacelia, I will eat it. I have seen deep ultramarine sashes of this hue—the type that hang on beauty queens.

More incredible color came from venidium, which is also known as monarch of the veldt. Since it is an uncommon plant to begin with and since I have little idea what a veldt is, the name is not much help. Let me just describe the fuzzy-gray-leafed plants the size of bushel baskets, covered with golden orange daisies with large central discs and short black-rayed petals, as stunning.

Two old favorites came gussied up in new forms. For some time, it seemed plant breeders had decreed bigger was better, and if they could stick a big fat flower on a dwarf plant, so much the better. That trend, thank heavens, may be receeding. 'Azure Pearls' and 'Summer Madness' petunias were bountiful bloomers. The advantage of the smaller but more plentiful flowers seemed to be that the spent blossoms are inconspicuous, rather than hanging on like wads of wet tissues.

Among the new lily varieties, I was especially taken with deep pink Daphne and creamy Mount Blanc. This was not a favorable year for newly planted lilies, as warm soil temperatures forced them into quick growth without a chance to settle in properly, resulting in short stems and aborted buds. Not to worry, they will adjust by next year and be heavenly in June.

I toured two lovely gardens this summer, tended by two good friends. Each found great delight in the other's creation, while the owner would apologetically make comments like, "I just poke things here and there. . . . it's really quite a jumble. . . . yours is so much prettier than mine. . . ."

Each had a garden of beauty and artistry, achieved through years of trial and error. Neither had reached a state at which they were truly satisfied—there were new plants to try and new challenges to face. And so we all fiddle and fuss, add and subtract, transplant and divide. As gardens mature, those who tend them know just how much tinkering needs to be done each year to achieve that elusive perfect garden. Of course, there has not been such a thing since Eve got into the orchard, but good gardeners persevere. "The Flowering of Denver" provides us all with an opportunity each year—the chance to get it right. As Henry Mitchell noted, "There is a constant struggle to achieve perfect balance and harmony, weighing the ideal against reality. I am quite positive my garden will one day come into breathtaking perfection—about two years after I am dead."

(Emerson R. Birchfield is our special correspondent for "The Flowering of Denver," the Plant and Used Book Sale, held annually in May. He invites your comments on plants you purchased at the sale, especially new varieties. Please send your letters to him in care of DBG, 909 York St., Denver, CO 80206).



"Flowers of the Botanic Gardens"

DBG members may be interested to know of an exhibit at the Montgomery House Gallery in Boulder. "Flowers of the Botanic Gardens," a showing of botanical art, features work by Gardens' instructor Rob Proctor and two DBG students, Shari Jones and Paula Nicholas.

The opening reception is November 18 from 5:30 to 8:00 p.m. at the Montgomery House Gallery at 741 Pearl Street in Boulder. The exhibition continues through December 2. Further information can be obtained by calling the Gallery at 449-5170.



Attracting and Feeding Backyard Birds

(two sessions)
Thursdays, December 1, 8
6:30 to 9:30 p.m.
DBG's Morrison Center

It's never too late to start feeding birds in your yard. Learn how to avoid less desirable species such as starlings and instead encourage chickadees, nuthatches, goldfinches, siskins and others.

The preferred foods of specific species, proper placement of feeders and houses, and sources of good, cheap food will all be covered.

Learn which plants (particularly those with low water needs) you can add to your landscape to attract even more feathered friends.

If you have problems with squirrels eating all your bird seed, you'll finally learn some useful remedies.

Instructor: Tina Jones is a wildlife instructor who teaches at the University of Colorado, the Denver Museum of Natural History and DBG. She is an active birder with many years of field experience.

Fee: $24 members/$26.50 non-members

Bromeliad Wreath Workshop

(one session)
Saturday, December 3
Classroom B
Section I: 9:30 to 10:30 a.m.
Section II: 11 a.m. to noon
Please indicate your section on the registration form.

Learn to make an unusual holiday wreath that features a bromeliad with bright, long-lasting flower bracts. Because the roots of many of these plants serve merely as anchoring devices, soil isn't necessary. In fact, with some minimal care, your wreath can be a year-round decoration.

Students will learn some basic information about the bromeliad or pineapple family with specific attention devoted to the tillandsias, which are appropriate wreath features.

All materials needed to construct an 18-inch wreath will be provided.

Instructors: Gary Davis and Pat Pachuta are horticulturists on the DBG staff who enjoy sharing their love of plants with others. In addition, Gary Davis maintains the extensive bromeliad collection at Denver Botanic Gardens.

Fee: $16 members/$18 non-members (includes $12 for materials)

Limit: 12 per section



CLASSES

Fall
1988
Denver Botanic Gardens

Christmas Ornaments from Straw and Wheat

(one session)
Saturday, November 19
10 a.m. to 3:30 p.m.
DBG's Morrison Center

Learn how to make ornaments from straw and wheat, a craft many Scandinavians do each winter for the holiday season. You will make snowflakes, wreaths, horses, angels and various other unusual tree ornaments. The fee includes wheat for the six or seven ornaments that will be made in class as well as some to take home for other ornaments.

Please bring a ruler, scissors and a sack lunch to class.

Instructor: Maureen McGowan is a horticultural instructor and consultant who has taught various craft classes, including wheat weaving, at the Chicago Botanic Gardens and DBG.

Fee: $26.00 members/$28.50 non-members (includes a $6 materials fee)

Limit: 12

Advanced Christmas Ornaments from Straw and Wheat

(one session)
Saturday, December 3
10 a.m. to 3:30 p.m.
DBG's Morrison Center

This workshop is for students who have attended any of the straw or wheat classes offered at Denver Botanic Gardens. New techniques of braiding and plaiting will be taught and participants can expect to complete five or six different ornaments for their holiday tree. Projects include an angel, bell and five-pointed star.

Please bring a ruler, scissors and a sack lunch to class.

Instructor: Maureen McGowan

Fee: $26 members/$28.50 non-members (includes a $6 materials fee)

Limit: 12

Wheat Weaving Workshop: Spiral Weaving

(one session)
Monday, December 5
6:30 to 9:30 p.m.
DBG's Morrison Center

Expand your knowledge of wheat weaving and learn to make a candy cane and a wreath for the holidays using the spiral weaving technique. Students must have some previous wheat weaving experience.

Instructor: Maureen McGowan

Fee: $18 members/$20 non-members (includes a $6 materials fee)

Limit: 12



Wheat weaving Instructor Maureen McGowan

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206
Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 331-4000.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Daytime Phone _____ Evening Phone _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

Gardening Tips for November

"Thirty days hath November," but only a gardener newly arrived in Colorado would hazard a guess as to how many of those 30 days will be open to gardening.

Some, certainly, will be beautiful days of autumn, when the weather is clear and the soil is dry enough to allow your spade or garden fork to cleanly leave the ground. Others, almost as surely, will be wintery, as wet and bitterly windy as a storm along a rocky New England coastline.

Leave your shovel hanging in storage when the soil is soaked: Working the soil, especially if it is clayey, damages its structure and it may be years before it regains an easily workable nature.

However, if possible, November is an excellent time to turn the soil in the vegetable garden, where annuals grew during the summer, between perennials, such as asparagus and rhubarb, and wherever new ground is to be prepared for future planting. Don't wait until spring for this chore. Consider the following advantages to doing it this month.

Eggs or cocoons of many insect pests—among others, grasshoppers, cutworms and tomato hornworms—have been deposited or are developing in the ground and overwintering. By turning the top layer of soil now you expose these unborn garden problems to the elements of winter. Many of them will be killed by freeze or dehydration, others will become food for the birds.

Rough-spaded soil allows winter moisture to soak in deeply and acts to inhibit the loss of this moisture during any long dry spell we may have before spring. During the winter the alternate processes of freezing and thawing will break down all but the largest clods to a fine workable texture by next spring. Only a preparatory raking should be necessary to level the ground for next year's planting.

Nearly any manure or organic matter can be incorporated into the soil when you spade at this time. Even fresh manures will age sufficiently over the winter to be safe for next year's planting. In fact they'll feed and prolong the beneficial activity of bacteria and other microorganisms until the soil freezes.

Perhaps the most important reason for spading your garden now is that it won't be waiting for you to do next spring. You won't be tempted to delay seeding spinach and other cool weather crops and they'll reward you with a longer, more productive season.



If you haven't yet planted your bulbs you may do this any time until the ground freezes. Often bulbs ordered by mail arrive well after the ideal time to plant, early October. This is especially true of summer-flowering lilies, most of which are grown in the Pacific Northwest where late-season rains often delay their harvest.

All of these bulbs must be planted in the fall. They make their vital root



growth in the cool soil of this season. If, however, the weather outdoors doesn't permit this, there's another tack you can take: Plant them in containers. The important thing is to get them into soil so they can develop their roots and prepare for their spring growth cycle.

Nearly any container will do, as long as it allows for at least four inches of soil (six is better) and for drainage after watering. Pots, wooden flats or other shallow boxes will serve. Plant the bulbs with their tops at least three inches below the surface of the soil, then water them well.

Store these containers where their soil will neither freeze solid nor rarely exceed 50 degrees during the winter. Ideally they should be sunk into the ground. Cover them with layers of any substance that will insulate them from drastic fluctuation in temperature—straw, newspapers, blankets or leaves. During the winter, monitor the bulbs to make sure they don't dry out, stay soggy or fall prey to mice or slugs.

Sometime after mid-January, depending on the type of plant, they may be brought indoors to a sunny window for "forcing" or they may be left to be replanted outdoors—as a clump, for their roots will be too hopelessly tangled to separate—when the soil has thawed. Divide and replant them in their intended location in the garden late next summer or early fall.

Treated in this manner they may not live up to their floral potential their first year, but you will have preserved their lives, as well as your investment.

Larry Latta
Botanist-Horticulturist
Denver Botanic Gardens

CALENDAR NOV

S	M	T	W	T	F	S
**First meeting of a class with more than one session*		1 Carl Tempel Wildflower Lecture	2	3	4 Botanical Treasures III at Turner Art Gallery	5 Botanical Treasures III at Turner Art Gallery
6 Botanical Treasures III at Turner Art Gallery	7	8 Election Day, Free Day for Denver City/County Residents	9	10	11	12
13	14	15	16	17	18 Annual Holiday Sale	19 Annual Holiday Sale, Christmas Ornaments from Straw & Wheat
20	21	22	23	24 Thanksgiving—DBG is open!	25	26
27	28	29	30			

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at Denver Botanic Gardens. Here is a listing of those groups and a ***general*** *indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 331-4000.*

African Violet Society, *4th Thurs. of 7 months;* ***Bonsai Society,*** *1st & 3rd Tues.;* ***Cactus & Succulent Society,*** *2nd Tues.;* ***Civic Garden Club,*** *1st Fri.;* ***Colorado Native Plant Society,*** *4th Wed.;* ***Gloxinia Gesneriad Growers,*** *1st Sat.;* ***Hemerocallis Society,*** *3rd Sun. of 4 months;* ***Ikebana International,*** *4th Fri.;* ***Iris Society,*** *spring & fall dates;* ***Men's Garden Club,*** *4th Thurs.;* ***Mycological Society,*** *2nd Mon.;* ***Rock Garden Society,*** *3rd Wed.;* ***Rose Society,*** *2nd Thurs.;* ***Ultra Violet Club,*** *4th Mon.;* ***Water Garden Society,*** *2nd Sun. of 5 months.*

Coming Next Month

Dec. 3-30
Blossoms of Light

Dec. 3
Quilt Show & Sale, Bromeliad Wreath Workshop, Christmas Ornaments from Straw & Wheat

December 5
Wheat Weaving Workshop

December 9
Heralding the Season

December 10
Teddy Bear Tea

December 11
High Tea

December 14
Botticelli String Quartet

December 17
Teddy Bear Tea

December 18
High Tea

December 21
Aries Brass Quintet

December 25
Christmas—DBG closed.

December 26-30
Evening hours for holiday visits

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-331-4000

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TIME VALUE

November 1988

89

Green Thumb

HAPPY HOLIDAYS

NEWS

Denver Botanic Gardens

December 1988

Number 88–12

"Blossoms of Light," a Holiday Tradition

Maradith Wilkins, Chairman of Blossoms of Light '88, invites you to come see the Gardens as they are transformed both inside and out into a "Winter Wonderland" for the month of December.

Thanks to the support of WearEver-ProctorSilex along with Ms. Wilkins and her committee working as hard as Santa's elves, preparations for Blossoms of Light have been completed.

One of the busy elves, Nancy Taplin, is in charge of the December 3 Quilt Show and Sale in John C. Mitchell II Hall from 10:00 a.m. to 4:45 p.m. New and antique quilts will be displayed and for sale from the Gazebo and Hands All-Around, stores from New York City, as well as Calico and Quilts of Littleton and the Brass Bed of Cherry Creek. No vision of a winter wonderland is complete without a roaring fireplace, a big easy chair in which to relax while wrapped in a cozy quilt, sipping a glass of holiday cheer or reading a favorite book.



Enjoy the winter wonderland of the Gardens after a snowfall.

Our own staff has been elflike and busy putting up thousands of lights throughout the conservatory and the grounds. This is the first year that the conservatory has been lit and you won't want to miss the magical effect. Follow the lights through the conservatory to Marnie's Pavilion where you will find grapevine wreaths decorated with colorful bromeliads, warmly lit by red lights resembling glowing candles. Leave Marnie's Pavilion and venture outside into a true winter wonderland magically lit by thousands of tiny lights. Stroll through the gardens following a path lit with flowering crabapples, trembling aspens, majestically glowing pines, gracefully arching roses and even a special winter wonderland design. This year the Gardens will be open more evenings so everyone has the opportunity to experience this special light tour. On December 14 and 21 and the week between Christmas and New Year's Eve the Gardens will be open until 8:00 p.m. And like last year, the Gardens will be open after the High Teas and Teddy Bear Teas.

Special evenings of holiday music will add to the festivities and will offer you an excuse to go inside and warm up after your stroll through the winter wonderland. Wednesday, December 14, the Botticelli String Quartet will be performing and Wednesday, the 21st, the performance will be by the Aries Brass Quintet.

Our staff, along with United Floral Industries, has also been hard at work transforming the Lobby Court into an old-fashioned winter wonderland with naturally decorated trees, an "ice-covered" pond, red and white poinsettias and much more.

The Lobby Court is also where Betts O'Meara's collection of tea sets and miniature English shops will be displayed in glass cases. The tea sets are exquisite; Royal Doulton, Wedgewood,

continued on page 4

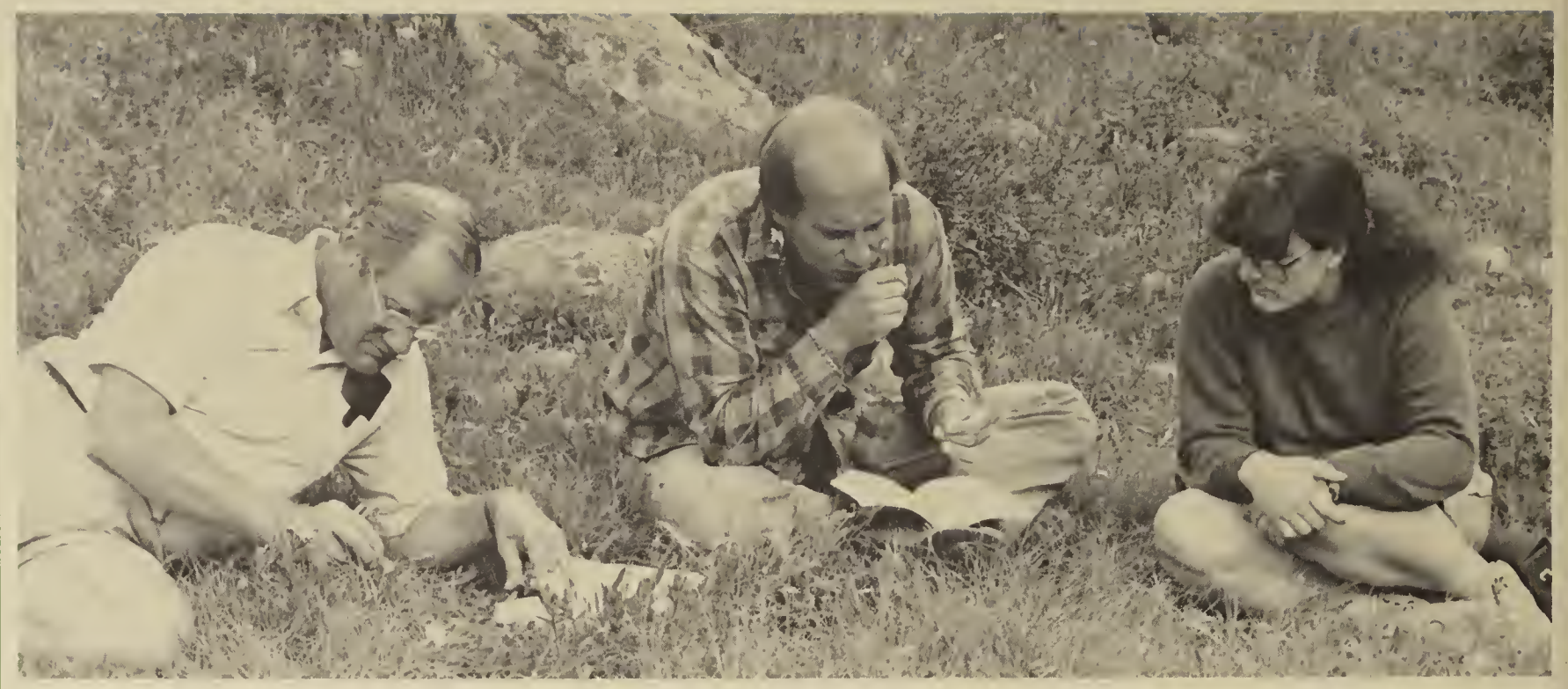
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Assistant Director Andrew Pierce (far left) collects seed with 1988 Summer College Interns Joseph Hudak and Suzanne DiGiacomo.

1989 Summer Intern Program

Do you know anyone currently studying in the fields of horticulture, botany or landscaping? Denver Botanic Gardens provides practical work-learning experience for students of those disciplines each year.

In 1989 the Summer Internship in applied horticulture begins mid-June and ends 10 weeks later in mid-August. Perhaps you or someone you know has an interest in this area. Application forms and additional information can be obtained by writing:

Patricia A. Pachuta
Education Director
Denver Botanic Gardens
909 York Street
Denver, CO 80206

Designed to be a practical work-learning experience for college students, it provides the opportunity to work with our professional staff and volunteers who are involved in the daily operation of a public display garden. This is experience not normally obtained in the classroom environment.

Included is planting, watering, pruning and weeding on the outside grounds; seeding, transplanting and propagation in the greenhouses; tropical and subtropical plant display maintenance; plus work in other support areas. In addition to the regular scheduled work activities, classes, field trips, lectures and demonstrations are planned.

To qualify, applicants must have completed their sophomore year of college with a grade point average of at least 2.5 on a scale of 4.0 and must be currently enrolled as either an undergraduate or graduate student. Several introductory courses in botany and horticulture are prerequisites. A taxable stipend of $2,000 will be paid to each intern for the 10-week term.

All application materials are due March 1, 1989, and notification of appointment will be mailed by the end of that month. Applications are now available for the 1989 program.

The opportunity to exchange information and ideas with interns has been a rewarding one and many interns have gone on to obtain interesting jobs partially as a result of the practical experience they gleaned from their 10 weeks at the Gardens.

Now On-Line with New Computer

This *Green Thumb News* comes to you with labels generated by our new computer system. Please check your label carefully and let us know if there are any changes needed. Call 331-4000, extension 22. If someone you know mentions they did not receive the December newsletter, we'd like to know this too. All current members should be receiving our mailings!

Tributes

In memory of Winona H. Chilcott
Dr. & Mrs. Robert M. Kosanke
In memory of Sarah Beth Coulson
Susy & Don Ellerhorst
Bill & Jean Haines
In memory of Teresa "Tess" Donohue
Mr. & Mrs. John Falkenberg
In memory of Cathy Feiertag
Mr. & Mrs. Robert Appel
In memory of Ann Felsen
Mr. & Mrs. Robert Appel
In memory of Esther Holtz
Dr. & Mrs. Robert M. Kosanke
In memory of Mrs. Ross (Emma) Lahr
Dr. & Mrs. Robert M. Kosanke
In memory of Mrs. Miles (Winnifred) Markley
Mrs. Margaret Wallace
In memory of Priscilla Kountz McGinnis
R.L. Davis III
Mr. & Mrs. Robert Flynn
Mrs. Thomas B. Knowles
Mr. & Mrs. John C. Mitchell II
In memory of Baby Katie Marie Nold
Mr. & Mrs. Robert Nold, Jr.
In memory of Mrs. Gerald (Janet) Phipps
Mr. & Mrs. Lawrence A. Long
Mr. & Mrs. John C. Mitchell II
In memory of Gavin Pierce
Dr. & Mrs. Robert M. Kosanke
In memory of Francis M. Reynolds
Sue & Terri Crum
Vanessa Lewis-DeBoer & Family
Charlotte & Art Maselo
Gerald & Evelyn McLellan
Gail Wilhite Okner
Claude & Marge Rice
Robert & Sharon Smith
In memory of Edna Smith
T.F. Poduska
In memory of Mrs. Thompson
Commander & Staff of COMPHIBGRU THREE

Green Thumb News
Number 88–12 December 1988

Published monthly by the Denver Botanic Gardens education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the membership department at the above address or call 331-4000.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than November 18 for January, December 19 for February and January 20 for March.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the education department at 331-4000 for details.

Accredited by the American Association of Museums

Spread Holiday Cheer Throughout the Year—Give a Gift Membership to the Gardens

One of the most thoughtful gifts and one of the most popular gifts is one that gives throughout the year.

Share your love of the Gardens with the ones you love. Members receive this newsletter with discounts on plant-related classes and timely horticultural information. Additionally, a library full of horticultural books and magazines, exciting special events and members-only activities are just a few of the benefits you will be providing with a gift membership.

Recipients receive a card informing them of your gift, plus a free plant that may be picked up at the Gardens. With memberships in various categories, you can easily find one that fits all needs. Complete the adjacent coupon, return it to the Gardens and we'll do the rest.

Holiday Gift Membership Form

Student (full-time)	☐ $18	Family/Dual	☐ $ 35
Senior (65 or over)	☐ $18	Contributing	☐ $ 50
Senior Couple (two seniors living at same address)	☐ $25	Supporting	☐ $ 100
		Advocate	☐ $ 300
		Patron	☐ $ 500
Individual	☐ $25	Benefactor	☐ $1,000

Donor's Name _____

Address _____

City _____ State _____ Zip _____

Recipient's Name _____

Address _____

City _____ State _____ Zip _____

Date to mail gift card _____

Gift card to be signed _____

Please send to Denver Botanic Gardens, Membership Department, 909 York Street, Denver, CO 80206

From the Smithsonian Institution to DBG for You—"Victorian Gardens"

"A choice collection of plants, in the sitting room or parlor, will add much to the charms of home," states the *New Book of Flowers* by Joseph Breck in 1886.

Tastes changed rapidly as leisure time increased during the Victorian era and Industrial Revolution. Upwardly mobile middle-class citizens of the 19th century began to pursue plants with great passion.

"Victorian Gardens: A Horticultural Extravaganza," a traveling exhibit from the Smithsonian Institution, comes to Denver Botanic Gardens on Saturday, January 28, and remains here only until Wednesday, February 15. A display of panels, complemented by Victorian artifacts and photos, presents information on how gardening became a popular pastime and why it was embraced with such enthusiasm.

The 1800s began with the grand expeditions to the New World by the great plant hunters who located many new-to-society plants. This made the selections intriguing and naturally sparked the curiosity of gardeners. And as a result of the increased interest in horticulture, other aspects of plant appreciation developed. Obsessions with flowers and gardening evolved into painting, flower arranging, indoor gardening and various plant-related crafts—all ways to capture the essence of plants for year-round enjoyment.



Wax Flowers from Art Recreations by J.E. Tilton & Co., Boston, 1861. (Photo circulated by SITES.)

The traveling exhibit from the Smithsonian Institution explains this through the use of illustrated panels. Carefully selected historical items will expand the interpretations offered. A specially designed display in the lobby will incorporate Victorian plants. These plants come from the Gardens' own collection. Classes and demonstrations provided at the Gardens will highlight some of the methods Victorians employed to preserve nature and to bring it into the parlor from the gardens. A variety of activities designed to let you share their love of nature has been planned in the education department of the Gardens. Additional details will be included in your January newsletter.

Visit "Victorian Gardens" between January 28 and February 15. This exhibit will be displayed in John C. Mitchell II Hall from 9:00 a.m. to 4:45 p.m. Members will be admitted to the exhibit at no charge and non-member visitors need only pay the standard gate fee.

The early spreading breezes of new affluence and leisure led to time for self-improvement and gardening was considered a direct avenue by many to reach this goal and to become cultured and refined. Gardens flourished, authors gushed over flowers and artists looked again at the offerings of plants. Many reasons can be listed for you, as readers of this botanical newsletter, to see this exhibit, but, whatever you do, as gardeners or artists, don't miss "Victorian Gardens: A Horticultural Extravaganza."

"Blossoms of Light"

continued from page 1

Jasper ware, silver and even Southwestern earthenware. Some of the sets are miniatures to be used in dollhouses and others are actually doll tea sets. While the tea sets are exquisite, the English shops are extraordinary. There is both a gold and silversmith's shop as well as a traditional English potter's studio.

While our staff has been busy in the Lobby Court and the outside gardens, Carolyn Longmire and some very special volunteers have been hard at work transforming John C. Mitchell II Hall into a late-19th century, early-20th century winter wonderland with examples of how different areas across the United States decorated for the holidays. With the help of the Denver Museum of Miniatures, Dolls and Toys, they have transformed each corner of the Hall into a different region of the country: North, South, East and Southwest.

The corner representing the North is truly a winter wonderland with snowflakes, icicles, a miniature ski chalet, toys, sleds and more. A primitive folk theme will prevail in the Eastern corner with the mood captured by popcorn and cranberries, candles, gilded walnuts, Amish dolls and miniature Shaker room boxes. A Williamsburg Christmas is the theme for the South represented by wooden apples and other fruits, antique ornaments, little soldiers, a Southern colonial dollhouse, elegant room boxes decorated with period furniture and accessories and beautiful dolls that will make you feel like you've been transported back in time to the traditional elegance of the South. A Southwestern adobe miniature house appropriately furnished, chili pepper lights, beaded Indian ornaments along with contemporary wooden Santa Fe ornaments; coyotes, armadillos and snakes, and cacti will bring to life the Southwestern winter wonderland.

The Sunday High Teas in John C. Mitchell II Hall on December 11 and 18 are the perfect ways to wind down after a hectic week of holiday shopping or entertaining, according to one of the committee members. Enjoy a cup of Earl Grey, Darjeeling or herbal tea and dine on scones with raspberry preserves and Devon cream, tea sandwiches, English cheeses and petits fours while listening to seasonal choral and instrumental music. Seatings are at 2:00, 3:30 and 5:00 p.m. Tickets are $15.00 and advance reservations are required.

And if while you are sitting enjoying tea and winding down, you realize you still have yet to come up with the perfect holiday or hostess gift or just want to treat yourself, don't forget that a Christmas cactus or a miniature holly tree could be the perfect solution. They will be sold during extended evening hours and the teas as long as our supply lasts.



The Teddy Bear Teas sponsored by Celestial Seasonings, Inc. were so well received last year that we have added another day. For two Saturdays, December 10 and 17, you and your children can enjoy herbal teas and a modified High Tea menu. Ashley O'Neill and her mother already have reservations. Little Ashley told us that she didn't want to miss bringing her teddy bear to tea and having her favorite, gingerbread people. Her mother said "there isn't anything better to put you in the holiday spirit than sharing special occasions with children" plus she enjoys getting Ashley dressed up and seeing her giggle with the other children as Judy Pankrantz performs her marionette show. Derick Hughes and his brother Sean enjoy the food but really look forward to their special gifts from Celestial Seasonings, Inc. Seatings are at 2:00 and 4:00 p.m., tickets are $8.00 and must be ordered in advance.

Because all teas were sold out last year, we urge you if you have not already done so to order your tickets now. Call 795-5644 for further information on the teas or to order tickets.

As you can tell, Maradith Wilkins' invitation to visit the Gardens during the "Blossoms of Light" holiday celebration is one you can't turn down.

"Blossoms of Light" Activities

Dec. 3-30	Winter Wonderland
Dec. 3	Quilt Show & Sale
Dec. 10 & 17	Teddy Bear Teas
Dec. 11 & 18	High Teas
Dec. 14	Botticelli String Quartet
Dec. 21	Aries Brass Quintet
Dec. 26-30	Evening Hours

Heralding the Season Reminder

Members wishing to attend Heralding the Season on Friday, December 9, must return their reservation slip to the Gardens postmarked no later than December 2. Invitations were mailed in November. Please include $2 for adults and let us know the number of children attending and your daytime phone number. Reservations are limited to the first 500 responses.

Denver Museum of Miniatures, Dolls and Toys Assists Blossoms of Light

A special wish of good cheer and thanks goes out to the Denver Museum of Miniatures, Dolls and Toys for all they have done to help the Blossoms of Light Committee prepare a spectacular display in John C. Mitchell II Hall during the month of December.

Carolyn Longmire, who is in charge of the displays this year, is confident that there is something to help put everyone into the holiday spirit. Your imagination will help you be transported to winter wonderlands in four different regions of the United States. The regions are represented through displays of decorated trees, miniature doll houses, miniature room boxes, dolls and toys. The Denver Museum of Miniatures, Dolls and Toys, along with Betts O'Meara, provided us with many of the displays.

To help boost your holiday spirits even further Ms. Longmire suggests a trip to the Denver Museum of Miniatures, Dolls and Toys, located in the Pearce-McAllister Cottage at 1880 Gaylord Street. Carrie McLaughlin, director of the museum and past president of the Denver Botanic Gardens Associates, explains that the Cottage is decorated in vintage 1920s including McAllister family tree ornaments and that upstairs you can see Santa used everywhere, as the special holiday exhibit is a charming display of "1001 Santas."

Ms. McLaughlin mentions that the Denver Museum of Miniatures, Dolls and Toys is adding a special touch to this year's holiday activities at the museum with Candlelight Tours on December 7 and 8, from 5:30 to 8:00 p.m. Admission will be charged for the tours that will also include hors d'oeuvres, hot cider, holiday music and special treats for the children. No advance reservations are required. One might also want to stop by the museum either before or after enjoying tea at the Gardens and participate in an "Old-Fashioned Family Holiday" complete with a visit by Father Christmas. The regular admission fee for the Denver Museum of Miniatures, Dolls and Toys will be charged and they will be open from 10:00 a.m. to 4:00 p.m. For more information on admission fees, times and events call 322-3704.

It has been a rewarding experience for these two institutions to work together and transform John C. Mitchell II Hall into a "Winter Wonderland" that should not be missed and will no doubt meet many a childhood fantasy.

Conservatory Guide Training Begins January 26

Last fall a Conservatory Guide Training class was offered and it was so popular that it is being offered again. Winter is a wonderful time in the conservatory as tropical plants are in flower and some fruits are beginning to develop. The cold of a winter day in Denver can be forgotten during a stroll through the warm jungle. It is an excellent time to participate in a guide training class.

Starting Thursday, January 26, and ending on March 30, a 10-week training class provides volunteers information on how to lead educational tours of the conservatory.

Students from metropolitan-area schools visit the Gardens and the conservatory as an extension of their classroom experience. Many of these fortunate students are met by our enthusiastic volunteer guides who take them on "jungle" excursions. On these tours, the young students can learn about tropical plant communities, economic plants, or simply the variety of plants that exists in the plant kingdom.

Volunteer guides participate in a 10-week training program that prepares them to lead these tours. The class size is limited and advance registration is necessary. To register for this class, use the education department registration form in this newsletter. A $25 fee will be refunded upon request after 40 hours of touring.

Classes meet weekly for two hours from 9:30 to 11:30 a.m. on Thursdays beginning January 26. The first hour of each session will be in Classroom B and the second hour will be spent in the conservatory.

Guides need not be plant experts, just possess a willingness to learn and the ability to provide several hours of time each month. The need for guided tours is constantly increasing, particularly for children in kindergarten through third grade. For additional information call the education department, 331-4000, extension 20.



Students enjoy tours led by the Gardens' volunteer guides. Helen Hale is one who helps children learn more about the Gardens.



Gift Shop Manager Mary Secrest is saying "Goodbye."

Say Goodbye to a Friend

The facts for the record are simple: At its meeting on September 12, 1988, the Gift Shop Board officially accepted the resignation of Mary Secrest, Gift Shop Manager, effective as of January 1, 1989.

There the simplicity ends. Mary joined the Gift Shop workers as a volunteer more than 20 years ago. At that time, the Gift Shop was located in the lobby, a single glass "pie case" with surrounding golden oak shelves and storage cupboards.

At that time, the Gift Shop Board consisted of six hardworking volunteers who made decisions, unpacked, priced and cleaned up, and each concerned herself with those areas of the buying and displaying which she was vitally interested in. A manager was not yet needed for volunteers were few.

Mary joined this small work force bringing with her a sunny disposition and a willingness to work at whatever needed attention. She not only learned to sell the merchandise but took her turn at unpacking, pricing, organizing and cleaning.

When the Gift Shop was finally permitted to move into the east third of the room, there was a surge of activity as more merchandise filled this new space. More volunteers were needed. Scheduling became a major task. As Fran Morrison writes, "It was evident that we needed a 'saint' to deal with the diverse personalities and split schedules. For more than 20 years Mary has shown sublime patience and diplomacy in recruiting, training, scheduling and soothing ruffled feathers."

The Gift Shop Board soon recognized the need for a manager to coordinate the growing complexity of the shop's business aspects, staffing the shop and its operations, the needs of the volunteers as well as those of the customers. Somewhere along the line, Mary became "Manager." It was a mild title for such an exacting challenge.

Did Mary succeed as a manager? Fran's letter continues, "The highest testimonial to her success is shown in the love and admiration of the many ladies who have given so freely of their time and talents. The dedication shown by Mary in making the Gift Shop a stunning success cannot be measured in words. For all this, Mary, the Committee offers its heartfelt thanks."

Yes, the facts are simple. Mary has chosen to retire from her multiple responsibilities as Gift Shop Manager, and we respect and accept her choice. Yet none of this records how we shall miss that very special gift that Mary had in dealing with volunteers, delivery persons, suppliers, customers, staff and maintenance workers. Words cannot convey her unfailing sense of humor, optimism and twinkling blue eyes when deliveries piled high and volunteers failed to appear. Words utterly fail to register the quiet dignity, dedication, determination and integrity with which she has served.

Thanks, Mary. Our loss is immeasurable, but we wish you godspeed in your well-deserved retirement.

Avalonne Kosanke

From 1:00 to 3:00 p.m. on Wednesday, December 7, Mary's friends at Denver Botanic Gardens will gather in John C. Mitchell II Hall to honor Mary and to celebrate her retirement. If you plan to attend, please call Associates' President, Lucile Downer at 985-8031 or Avalonne Kosanke at 238-2998.

News from the Gift Shop: Last Minute Shopping

All of the volunteers and the staff of Denver Botanic Gardens thank you from the bottom of their hearts for making the 1988 Holiday Sale once again an unqualified success! But even though you shopped till you dropped at the sale, undoubtedly there are still gifts to buy on your list. Why not make a return trip to the Gift Shop in a calmer mode and reappreciate all that it has to offer?

Those of you who had to miss the sale will also be glad to know the Gift Shop still has a fine selection of gifts available for holiday giving. And we never get tired of saying that a gift from the Gardens is a gift to the Gardens.

Those of you who associate Christmas with the smells of baking should be sure to look for the large cookie jar filled with terra-cotta cookie molds. These double as country kitchen decorations when not in use.

The cook on your list will set a cheerful table with Christmas linens and coasters. And our cloth-lined Christmas baskets are the perfect beginning for a holiday centerpiece.

If you contemplated buying one of the hand-cut tin country or Christmas wreaths but passed it up, we urge you to do so now. The artist is retiring! The Gift Shop buyers purchased for you all that were available but when these charming wreaths are gone, there will be no more.

Other noteworthy items: an assortment of beautifully decorated figures from the Nutcracker Suite, ducks of all sizes made from seagrass and twigs, Christmas greetings that grow from Applewood Seeds, lovely hand-blown glass paperweights, and Christmas characters for stocking-stuffers.

As always, members are encouraged to take advantage of the 10 percent discount on all purchases totaling $10.00 or more. Please show your membership card when paying.

Last Free Day of 1988

Residents of the City and County of Denver are invited to view the "Winter Wonderland" holiday decorations at Denver Botanic Gardens free of charge on December 8. This is the last free day scheduled at the Gardens in 1988.

Members of the Gardens are always admitted at no charge, but you might want to take advantage of this opportunity and bring your Denver friends and introduce them to the Gardens in all of its holiday splendor.

Denver Audubon Society Bird Seed Sale

The Denver Audubon Society will hold its annual winter bird seed sale in January. Order forms for the seed and bird feeders must be received by the Denver Audubon Society office in advance.

Order forms can be obtained by calling the DAS office at 860-1471. Seeds must be picked up on Sunday, January 29, unless other arrangements are made with the office. Orders can be delivered for a $10 delivery charge.

Bird feeder orders must be received by January 2 and seed orders must be received by January 16. Order forms are available now.



ALCC 1989 Conference and Trade Show

The Associated Landscape Contractors of Colorado (ALCC) expect that on the 12th anniversary of their Annual Conference and Trade Show attendance numbers will top those of previous years. The Conference and Trade Show is scheduled for February 23 and 24, 1989, and will be held at the John Q. Hammons Trade Center in Denver just east of Stapleton International Airport.

For exhibitor and attendee information, contact Diane Matt or Chery Flores at ALCC Headquarters in Denver, (303) 425-4862.

Attracting and Feeding Backyard Birds

(two sessions)
Thursdays, December 1, 8
6:30 to 9:30 p.m.
DBG's Morrison Center

It's never too late to start feeding birds in your yard. Learn how to avoid less desirable species such as starlings and instead encourage chickadees, nuthatches, goldfinches, siskins and others.

The preferred foods of specific species, proper placement of feeders and houses, and sources of good, cheap food will all be covered.

Learn which plants (particularly those with low water needs) you can add to your landscape to attract even more feathered friends.

If you have problems with squirrels eating all your bird seed, you'll finally learn some useful remedies.

Instructor: Tina Jones is a wildlife instructor who teaches at the University of Colorado, the Denver Museum of Natural History and DBG. She is an active birder with many years of field experience.

Fee: $24 members/$26.50 non-members

Advanced Christmas Ornaments from Straw and Wheat

(one session)
Saturday, December 3
10 a.m. to 3:30 p.m.
DBG's Morrison Center

This workshop is for students who have attended any of the straw or wheat classes offered at Denver Botanic Gardens. New techniques of braiding and plaiting will be taught and participants can expect to complete five or six different ornaments for their holiday tree. Projects include an angel, bell and five-pointed star.

Please bring a ruler, scissors and a sack lunch to class.

Instructor: Maureen McGowan is a horticultural instructor and consultant who has taught various craft classes, including wheat weaving, at the Chicago Botanic Gardens and DBG.

Fee: $26.00 members/$28.50 non-members (includes a $6 materials fee)

Limit: 12

Wheat Weaving Workshop: Spiral Weaving

(one session)
Monday, December 5
6:30 to 9:30 p.m.
DBG's Morrison Center

Expand your knowledge of wheat weaving and learn to make a candy cane and a wreath for the holidays using the spiral weaving technique. Students must have some previous wheat weaving experience.

Instructor: Maureen McGowan

Fee: $18 members/$20 non-members (includes a $6 materials fee)

Limit: 12

Bromeliad Wreath Workshop

(one session)
Saturday, December 3
Classroom B
Section I: 9:30 to 10:30 a.m.
Section II: 11 a.m. to noon
Please indicate your section on the registration form.

Learn to make an unusual holiday wreath that features a bromeliad with bright, long-lasting flower bracts. Because the roots of many of these plants serve merely as anchoring devices, soil isn't necessary. In fact, with some minimal care, your wreath can be a year-round decoration.

Students will learn some basic information about the bromeliad or pineapple family with specific attention devoted to the tillandsias, which are appropriate wreath features.

All materials needed to construct an 18-inch wreath will be provided.

Instructors: Gary Davis and Pat Pachuta are horticulturists on the DBG staff who enjoy sharing their love of plants with others. In addition, Gary Davis maintains the extensive bromeliad collection at Denver Botanic Gardens.

Fee: $16 members/$18 non-members (includes $12 for materials)

Limit: 12 per section



CLASSES

Fall 1988
Denver Botanic Gardens



Illustration by Ardyce West, a student in Rob Proctor's Botanical Illustration class.

Watercolor Painting

(five sessions)
Wednesdays, January 4, 11, 18, 25, and February 1

Section I: 9:30 a.m. to 12:30 p.m.
Section II: 6:30 to 9:30 p.m.

Please indicate your section on the registration form.

DBG's Morrison Center

Explore the sparkle and delicacy of watercolor painting while enjoying the natural setting of Denver Botanic Gardens. This course will cover the basic materials and techniques of watercolors with emphasis on the freedom of personal expression.

Come prepared with supplies. You'll need: a 1½-inch flat brush, #10 round brush, watercolor paper, tissues, container for water, plastic palette and cake or tube watercolors.

Instructor: Lynette Swanson-O'Kane is a graduate of the Philadelphia College of Art and a professional artist with national representation of her work.

Fee: $50 members/$55 non-members

Limit: 12

Further Techniques in Botanical Illustration

(five sessions)
Saturday, January 14, 21, 28, Feburary 4, 11
1 to 3:30 p.m. Classroom B

Spend Saturday afternoons capturing the Gardens' bountiful floral beauty in your drawings. This course is designed for amateur or working artists with advanced drawing skills. Previous botanical illustration classes are necessary, but may be waived with the permission of the instructor.

Focusing on accuracy, style and composition, students will work with colored pencils or watercolors.

Please bring two drawing pencils (2B and 3H), an eraser and either a colored pencil set (Berol Prismacolor is recommended) or watercolor materials. A drawing pad will be provided.

Instructor: Rob Proctor is a Boettcher Scholar who studied at the University of Colorado. He has held one-man shows in three countries and his botanical drawings and watercolors hang in many collections throughout the world.

Fee: $56 members/$61 non-members (includes $6 for materials)

Limit: 15

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206

Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 331-4000.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

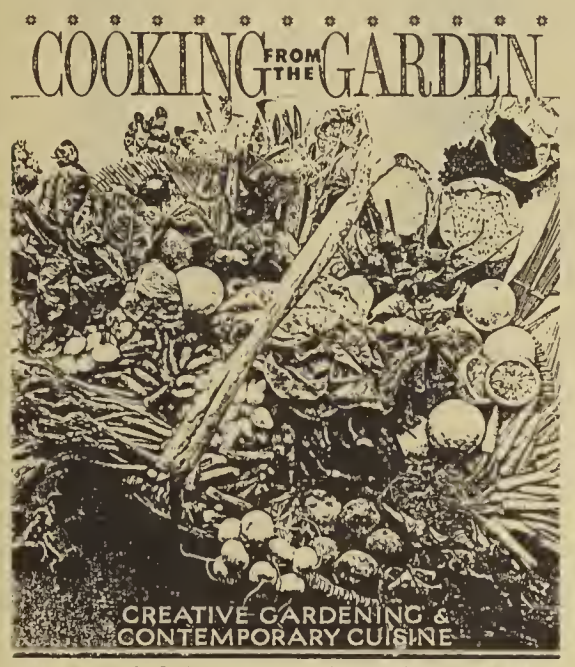
Daytime Phone _____ Evening Phone _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

Cooking from the Garden

By Rosalind Creasy. Sierra Club Books, San Francisco, 1988. $35.00. SB 321.C7 1988.

(This book is available in the Gift Shop.)



One can only read and regard with great awe Rosalind Creasy's organizational talents in researching and writing this book. The logistics must truly have been formidable in coordinating the contributions of what seems "a cast of thousands" (gardeners, chefs and other consultants) who provided material for this collection of gardening techniques and resources combined with recipes and cooking methods for such a wide array of garden crops.

This large volume (547 oversized pages) is divided into five parts. The first three are devoted to theme gardens: "Traditional Gardens" reflects our American heritage by including native American, chili and cajun gardens and cuisines. "International Gardens" explores Italian, French, German, Mexican and Asian foodstuff along with their culinary possibilities. "Avant-Garde Gardens" delves into the more esoteric realms of spa and edible gardens.

Each of these theme gardens includes a list of recommended vegetable varieties, profiles of chefs and gardeners, a cooking section with applicable recipes and concludes with source materials on seed companies, festivals, public/commercial gardens and an annotated reading list.

The fourth section covers basic information on how to grow, harvest and preserve many kinds of herbs and vegetables. The last part, "Resources and References," is a treasure-house of information on garden planting and maintenance, pests and diseases, suppliers (both nurseries and seed companies, mail order garden and cooking supplies) and an annotated bibliography followed by an extensive index.

The photographs (mostly by the author) are superb throughout. Indeed, this is a book to cherish long and contemplate profitably.

Louise J. Jarvis
Library Volunteer

The American Gardener: A Sampler

Edited and with an introduction by Allen Lacy. Farrar Strauss Giroux, New York, 1988. $18.95. SB 455.A5 1988.



Rarely has a gardening book given me as much pleasure and as many insights as this one. Anthologies can be frustrating—not enough of any one author or subject—but this one achieves a perfect balance. The topics covered are: To Make a Garden, Color, Fragrance, Native Plants, Naming Plants, Pests and Poisons, and finally, one which is a central question for the Rocky Mountain gardener, Lawns . . . or Enclosed Gardens?

Mr. Lacy, one of the best contemporary garden authors, had several goals for this book. Foremost was to make us aware that America had and has (the selections range from 1805 to 1987) a strong gardening literature of its own, independent from Great Britain. This he achieves with even a handful of the selections. He never explains why American gardening authors have been overshadowed by their British brethren; certainly not for lack of quality writing.

Another goal was to demonstrate changes in attitudes about gardening. Early American garden writing was marked by an asceticism broken only in 1894 by Celia Thaxter's *An Island Garden,* the first book to acknowledge the sensual pleasures of color and fragrance. Mr. Lacy maintains that another change has been a movement away from a high moral tone emphasizing the social, ethical and even medical benefits of gardening. Alas, I fear he was hasty here. A recent *Time* cover article on the revival of gardening in America reported that at least some of today's gardeners justify their pleasure with the assertion that the aerobic benefits equal those of the jogging their prematurely geriatric knees forced them to abandon.

A third goal was to illustrate changes in writing style over the last century or so. This comes across clearly since the selections are arranged chronologically. Just as we become accustomed to Thomas Jefferson's formality, we encounter Thalassa Cruso's brisk but sentimental admonitions to grow scented plants to anchor our children's memories in the garden.

Although not a stated goal, Mr. Lacy also brings into focus perennial issues in American horticulture: What should be the role of native plants in landscaping? What should be planted in public gardens? How should we cope with pest—practically and emotionally—without poisons? Should we have lawns? It is the grappling with these issues that seems particularly American to me, and a major contribution.

I came away from the book with a long list of new authors to explore. This was facilitated by the mini-biographies in the appendix, themselves fascinating reading. I only have two complaints. First, there are no pictures beyond the lovely reproduction of the Childe Hassam portrait of Celia Thaxter in her Maine garden. Second, there is no Mr. Lacy himself. Anyone who can put together such a wonderful sampler must have many interesting things to say. The one column of his I've read this year in *The New York Times,* on his excitement at rediscovering his own garden through a hand lens, is worthy of inclusion in this book.

Alcinda Cundiff
Research Associate, Dept. of EPO Biology, University of Colorado, Boulder

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Volume 11, No. 6
December 1988
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The House and Garden Book of English Gardens

By Peter Coats. Little, Brown and Company, Boston, 1988. $29.95. SB 466. G8 C65Ho 1988.

One of the most readable and informative formats for a gardening book is descriptions of real gardens. Peter Coats, garden designer and author of several books on world-famous gardens, claims to present here smaller gardens requiring a minimum of outside help.

Minimal help can apparently include one full-time gardener. This, plus the great age of many of the gardens, means that we will find few useful tips here. For instance, one couple integrated their swimming pool into the garden with 22 Tuscan columns and an ancient urn. Another turned an old yew hedge into a life-sized Beatrix Potter-style cottage complete with wooden window frames and door. However, having taken a self-guided tour of truly suburban gardens open to the public in London, I can vouch that we would prefer these grander gardens for our picture books.

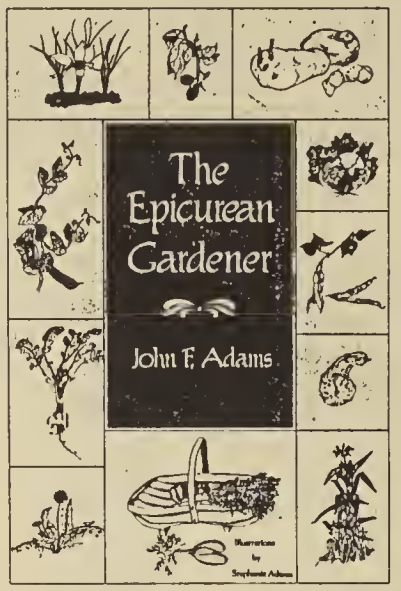
Practical hints do emerge: Plant *Lavatera* among roses for continuous bloom; in clay soil, plant acid-loving shrubs such as *Kalmia latifolia* in tubs; and my favorite, "accent plants that die decoratively." We are also given a four-part recipe for turning a standard sink into a stone-sink mimic for alpines, the fourth part of which is to paint with a mixture of cow manure and milk. Finally, we come away with some appreciation of our weeds when we see a proud display of skunk cabbage or thistle, exotic to the British, in such elegant surroundings.

The major drawback of this book is that the gardeners are not usually allowed to speak for themselves. When they are directly quoted, all the excitement and pathos and long years of labor spring before us. This inspires one to seek out books with a more personal tone such as *The Englishman's Garden* and *The Englishwoman's Garden*, both edited by Alvilde Lees-Milne and Rosemary Verey. Other drawbacks are the very short treatment each garden receives and the somewhat lackluster photographs. But it would be a useful book for what is surely its intended audience, those planning a garden tour of England and who are wanting to include the more "modest" gardens.

Alcinda Cundiff

The Epicurean Gardener

By John F. Adams. E.P. Dutton, New York, 1988. $18.95. SB 321 A3 1988



John Adams, who gardens in Colfax, Washington, takes a refreshingly undidactic approach to gardening. He emphasizes the fun, experimentation and adventure possible in the planting, harvesting and eating of homegrown vegetables.

There is advice for planting, tilling and fertilizing with specific instructions for a wide range of vegetable crops. There are chapters for greens, beans, potatoes and root crops as well as for onions, cabbages, tomatoes and corn. In addition, he covers cucurbits, "the gilded lily" asparagus, herbs and savories (with a marvelous description of hop-growing), along with berries and small fruits.

Great emphasis is placed on methods and plant varieties having year-round crop possibilities, with discussions of different types and species suitable for varying climates and growing conditions. He is careful to provide plant and seed sources for the varieties mentioned. These are helpfully consolidated into a 43-item appendix of names and addresses, including, among other delightful items, sources for heirloom field corn, 10 varieties of popcorn seed, and French, Mexican and Asian plant varieties.

This book will make great winter reading — and provide an impetus for experimenting with one or two new vegetables for next year's garden.

Louise J. Jarvis

The Potted Herb

By Abbie Zabar. Stewart, Tabori and Chang, New York, 1988. $14.95. SB 351.H5 Z3 1988.



The value of fresh herbs became clear to me this summer when I was staying deep in the Italian countryside in a rented villa. I had neglected to bring condiments and didn't want to buy large quantities for a short visit. Fortunately, I found old plants of rosemary and sage growing in an abandoned pear orchard. The transformation of my dull cooking was incredible. I vowed never to be without fresh herbs, which of course means growing them inside in the winter. This delightful book tells how.

Detailed cultural procedures are given for most herbs, including precise instructions for creating topiaries of several shapes. The author's topiaries "evoke miniature forests and scaled-down versions of the fairy-tale gardens of the world" high above Central Park in New York. But such mundane topics as soil mixtures and root pruning are also covered. There is even an entire chapter on pots, although you may be a bit frustrated by your inability to bring 36 perfect clay pots back from Cap Ferrat as the author did. Herbal lore and uses are scattered throughout but do not overshadow the basic gardening information.

The author's own line drawings accompany the text. If you are quite new to herbs, you might want to consult Guy Cooper's recent book, *English Herb Gardens,* which includes crystal clear photographs of each species. But this book makes a charming complete and ideal gift, perhaps accompanied by two-inch pots of some of the herbs that are harder to start from seed, such as parsley.

The final chapters include uses and recipes. I don't see myself making herb-scented ink or lavender swizzle sticks, but I'll definitely try the mock Florentine beefsteak and sage potato crepes. The author omits one of the most useful of all herb recipes that I discovered during the deep snows of last winter: Take your entire stock of herbs and spices, place a bored toddler on the table, open each jar or bag and hold, one by one, under the toddler's nose. Remove the delighted toddler one quiet hour later.

Alcinda Cundiff

Gardening Tips for December

Every holiday season the Gardens receives, along with questions about plant care, inquiries about the possible toxicity of the various plants we use to adorn our homes. With these questions in mind let's examine a few of the plants of this festive season.

The poinsettia receives the most attention because it is so popular, used by the millions each year, not only in the United States but throughout the world. Many older accounts suspected it of being poisonous. Currently though, it is considered non-toxic. Perhaps through the years of hybridizing and selection it has undergone since its introduction in 1834, the poinsettia has lost some of its original potency. However, its white latex does cause an allergic reaction for some people, especially when they handle large numbers of plants.

Many plants are used decoratively during the holidays because of their attractive fruits. At the top of this list would be mistletoe, *Phoradendron serotinum* (or *P. flavescens)*. It has sticky white berries.

Our supplies are usually shipped from Texas where it grows parasitically on oaks and other deciduous trees. While our Colorado native mistletoes, of the genus *Arceuthobium,* are related to those from farther south, they lack leaves, and the fruit is small without white flesh. They are not used for decoration.

Mistletoe fruit is poisonous and is attractive to children. Fortunately mistletoe is used in small quantities here, perhaps because of the high cost of shipping.

Hollies have been used in Europe for many centuries. The traditional one is *Ilex aquifolium,* which has clusters of toxic, bright red berries and may have either dark green or variegated foliage. It is used for centerpieces, wreaths and other floral displays. American species such as *I. cornuta* or *I. verticillata* are less toxic but, like plants of the hybrid *I.* x *meserveae,* should also be considered suspect.

Another eye-catching fruit is borne by the Christmas cherry, or Jerusalem cherry, *Solanum pseudocapsicum.* In the family Solanaceae, it is related to such other well-known poisonous plants as nightshade, potato (all parts toxic except tubers), tomato (all parts toxic except fruit) and jimson weed.

The Christmas cherry fruits are bright orange-red, about one-half inch in diameter and look like small round peppers. The plant can be identified positively by the very small five-pointed white flowers, which may be borne at the same time as the fruit.

Two other plants are more widely used in Europe than here for holiday decoration: English ivy *(Hedera helix)* and the yew *(Taxus baccata)*. Both are quite poisonous.

The ivy bears its green-to-black clusters of fruits only on adult growth. However, it is most commonly seen as a juvenile plant. Handling ivy leaves in large quantities can cause dermatitis.

The yew fruits have bright red arils attached to the black fruits. (Arils are colorful partial coverings on the seeds.) If the seeds are ingested whole, they pass through the digestive system without problems, but if they are chewed or broken, they, as well as the leaves of the plant, are very toxic. The yew is considered the most dangerous plant in the British Isles where it carries the name "the tree of death."



Taxus baccata from Die Giftpflanzen Deutschlands, 1910, by P. Esser, from the collection of the Helen Fowler Library.

Other shrub berries used in lesser amounts are the black fruits of the privets; the four-sided orange-centered fruits of the European spindleberry tree, *Euonymus europaea;* and the pointed green seeds of boxwood. I have also seen the yellow-fruited winter twigs of *Rhus toxicodendron,* poison ivy, in flower arrangements!

We should note that there are several other shrubs in fruit at this time not considered poisonous: dogwood *(Cornus sericea),* cotoneaster (several species), Oregon grape *(Mahonia aquifolium)* and firethorn *(Pyracantha coccinea).*

In addition to the plants with attractive foliage and berries are the early forced bulbs that come into the market about Christmastime. As the season progresses we will see amaryllis, paperwhite narcissus, hyacinths, snow drops, yellow garden narcissus and tulips. Most of these should be regarded with suspicion as well. Although they may not affect a majority of people, for others they may cause dermatitis, especially when handled in quantity.

A more dangerous pot plant that is often sold with the spring bulbs is *Primula obconica,* with pink or lavender flowers. On the underside of the leaves and along the stems of this pretty primrose are stinging hairs that can cause quite a severe case of "obconica rash."

All this doesn't mean we must banish any one of these plants from our homes for the holidays. But do take reasonable care that children and pets don't eat any berries or leaves, and handle the plants no more than necessary.

Plants are a beautiful part of the holiday scene, and many are symbolic with long holiday traditions. Include them, as you do many other decorations, with care.

Andrew Pierce
Assistant Director of
Denver Botanic Gardens

CALENDAR DEC

S	M	T	W	T	F	S
**First meeting of a class with more than one session*				1	2 Dec. 3-30 Blossoms of Light	3 Bromeliad Wreath Workshop, Christmas Ornaments from Straw & Wheat
4	5 Wheat Weaving Workshop	6	7	8 Free Day for Denver City/ County Residents	9	10 Teddy Bear Tea
11 High Tea	12	13	14 Botticelli String Quartet—open 'til 8 p.m.	15	16	17 Teddy Bear Tea
18 High Tea	19	20	21 Aries Brass Quintet—open 'til 8 p.m.	22	23	24
25 Christmas—DBG closed.	26 Evening hours—open 'til 8 p.m.	27 Evening hours—open 'til 8 p.m.	28 Evening hours—open 'til 8 p.m.	29 Evening hours—open 'til 8 p.m.	30 Evening hours—open 'til 8 p.m.	31

Coming Next Month

January 1 Happy New Year—DBG closed	January 26 Conservatory Guide Class*	Jan.28-Feb. 15 "Victorian Gardens: A Horticultural Extravaganza"

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at Denver Botanic Gardens. Here is a listing of those groups and a ***general*** *indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 331-4000.*

African Violet Society, *4th Thurs. of 7 months;* ***Bonsai Society,*** *1st & 3rd Tues.;* ***Cactus & Succulent Society,*** *2nd Tues.;* ***Civic Garden Club,*** *1st Fri.;* ***Colorado Native Plant Society,*** *4th Wed.;* ***Gloxinia Gesneriad Growers,*** *1st Sat.;* ***Hemerocallis Society,*** *3rd Sun. of 4 months;* ***Ikebana International,*** *4th Fri.;* ***Iris Society,*** *spring & fall dates;* ***Men's Garden Club,*** *4th Thurs.;* ***Mycological Society,*** *2nd Mon.;* ***Rock Garden Society,*** *3rd Wed.;* ***Rose Society,*** *2nd Thurs.;* ***Ultra Violet Club,*** *4th Mon.;* ***Water Garden Society,*** *2nd Sun. of 5 months.*

Denver Botanic Gardens, Inc.
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